

MANUFACTURERS' RECORD.

[Name Patented 1889.]

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXIV. No. 20.
WEEKLY.

BALTIMORE, DECEMBER 15, 1893.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

FREE ORE AND FREE COAL

Mr. Edward Atkinson, of Boston, Writes In Favor of Free Ore and Coal, and Predicts Great Prosperity If the New Tariff Bill Is Passed Promptly.

Gen. Joseph Wheeler, Congressman from Alabama, Vigorously Opposes Free Ore and Coal, and Claims that the South would be Seriously Injured by the Policy of Free Crude Materials If Adopted.

The MANUFACTURERS' RECORD publishes in this issue a very interesting presentation of the free-trade side of the present tariff discussion by Mr. Edward Atkinson. This question, of such vital interest to American people, demands the careful study of everyone, and the MANUFACTURERS' RECORD, though thoroughly opposed to Mr. Atkinson's views and believing in a protective tariff, takes pleasure in calling attention to his letter. Freely expressing its own opinions, it is at all times ready to open its columns to anyone who wishes to criticize its position.

Against Mr. Atkinson's views we would place the almost unanimous testimony of the practical business men, who, knowing whereof they speak, show that free coal and free ore would prove a serious injury to the South. On this side of the subject we are able to publish the views of Gen. Joseph Wheeler, of Alabama, one of the leading democratic congressmen of the South, who admits that New England would be greatly benefited by free crude materials, but claims that the South would suffer. Moreover, the policy of free ore and coal, General Wheeler says, is undemocratic. It is an interesting fact to find a leading New Englander pleading for free trade answered by a leading Southern democratic congressman.

Mr. Atkinson's Views.

BOSTON, December 9.

Editor Manufacturers' Record:

You ask me to restate for publication my private opinion expressed in a letter to yourself to the effect that we might look for very active business and for very prosperous conditions in the autumn or last six months of the next year. You will remember that I gave as one of my reasons the probably beneficial effect of the enactment of the new tariff bill in removing the duties on crude or partly manufactured materials which are necessary in the processes of our domestic industry, provided this measure did not become a football of politics, but were enacted speedily, so that it might take effect some time in the first six months of the next year.

I also expressed my judgment that to no class of occupations would this change be more beneficial than to the coal and iron industries of the whole country, and especially of the South. I should expect the measure to be yet more beneficial to these specific branches of industry if it were proposed not only to put coal and iron ore into the free list, but if it were also proposed and carried to put all the crude forms of iron and steel into the free list. The iron industry grows by what it feeds upon; the

more free the supply, domestic or foreign, the greater the demand.

If I were the owner or manager of coal and iron mines or iron furnaces I should advocate that policy, not only for the general welfare of the country, but for the special welfare of the iron industry of this country. I regard these duties as having been detrimental and obstructive to the development of the iron production of this country for many years. Whether or not the so-called protective duties have ever been a benefit to the iron and steel industry I doubt, but it is useless to discuss that dead issue. We must now deal with present conditions, and not with past theories. That these duties have retarded the progress of the iron industry in this country for many years I think can be very readily proved, and to that end I will give you my reasons, because I respect your paper for dealing with these questions in an impartial manner, fully recognizing the sincerity of the purpose with whom your editors may disagree.

My first reason for desiring the removal of taxes upon the import of coal and iron in all forms is that we have in this country in this branch of industry *the cheapest labor in the world*. That is to say, if the cost of labor be computed and charged to the unit of product, there is no country in the world that can put a ton of coal at the mouth of the mine, into the coke oven or into the iron furnace at so low a cost per unit of ton as we can. There is no country in the world that can put a ton of iron ore upon the cars, transport it and put it into the converting furnace at so low a cost per ton as we can. There is no country in the world that can approach us in the low cost at which we can deliver coke of the best quality upon the cars or at the converting works in which it is to be used in making steel. Whatever the price or wage of our labor may be, it is, nevertheless, the cheapest. There is no delusion so mischievous as that which leads to the rate of wages being treated as the standard or measure of the cost of labor. There is no labor so dear as "pauper labor."

As a general proposition it may be maintained that the labor of this country, in its application to nearly every product to which machinery, improved tools or modern inventions have been or may be applied, *is cheaper than that of any other country*. That is to say, the cost of the labor in a given unit of product with a few exceptions, mainly on fine and fancy fabrics, which depend on fashion for their sale, is less than it is in any other country. The beneficent result of these conditions is that, with few exceptions and with scarcely any exception affecting any of the necessities of life, the products of this country are produced at the lowest rate of labor cost, from which products the working people derive the highest rates of wages or earnings.

It needs but an instant's thought to prove this proposition to anyone who can think at all. For example, I will put the case into the form of interrogatories—the Socratic form, so called. I have before me the outward manifests of exports from New York for December 2, from among which I will select a few examples. The steamer Othello takes to Antwerp 700 bales of cotton. Are not the rates of wages in our own cotton States much higher than in Egypt, in India or in the other country? Is not the cost of producing our cotton, taking into view its kind and quality, less than it is anywhere else? If not, how can we ship 700 bales of cotton to Antwerp? The next article is tobacco. The same questions may be put in regard to tobacco. The next item, sixty-nine cases of hardware. Is it not well known that the skilled artisans of this country who manufacture hardware earn higher wages than they do in any other country? Must they not produce their products at a lower cost, due regard being given to quality, than they can be produced in the Netherlands? Otherwise, how could this lot of sixty-nine cases of hardware be exported? The next items, four packages of iron manufactures, three packages of agricultural implements, thirteen bales of leather, three packages of pumps, six packages of wagon materials. Apply the same questions.

We will next glance over the manifest of the steamer Philadelphia from the port of New York. Among other articles I find listed sixteen bales domestics, eight cases of hardware, ten packages linseed oil, seventeen cases of furniture, 115 packages of iron manufactures, seventeen bales of cotton duck, nine packages of pumps, and so on. Are not these produced at lowest cost and highest wages? Otherwise, how exported?

In other manifests in this and other papers I have observed very great numbers of packages of almost every article made in this country, as, for instance, on the steamer Orinoco, clearing from New York for Hamilton. Where that particular Hamilton is I do not know, but Hamilton buys of us, apparently, boots and shoes, cotton goods, blankets, hats, musical instruments, sewing machines, etc. Havana takes machinery and other articles. England, by way of Hull, takes of us many kinds of iron manufactures, steam valves, pipe fittings, woodenware, agricultural implements, belting, leather, typewriters, sewing machines, etc. Australia takes locomotive engines, hardware, agricultural implements and the like. Many countries take coarse and medium cotton goods, and almost every country with which we have dealings takes some kind of manufactures in which iron enters either as the principal component material or a component material of considerable value, all made at the highest relative rates of wages, all made at the lowest relative cost, else how could they be exported?

These exports of so-called manufactures are listed in the export statements under that title, but if the same classification were applied to our exports that is applied to classifying manufactures in the census, we should add to our exports of *manufactures* all our flour, dressed meats, dairy products and a great many other articles which are distinctly high types of manu-

facture in the sense in which that word is commonly and officially used. Under this official classification more than half of our exports to other countries consists of manufactures, according to the definition of that word as it is used in the census of the United States.

Again I ask, if we had not the cheapest labor in the world in each of these products, to the end that measuring the cost of labor in each unit of product in money we can sell them at a lower price, how could we export them in the face of the competition of the so-called cheap labor of Europe? This labor is cheap only in the sense of being low-priced, but it is very dear in great classes of manufactured goods when measured by the cost of the unit of product.

There are no articles which we produce relatively at so cheap a cost of labor as compared to other countries as crude coal and pig iron. Why? Because our mines are very extensive. With the exception of anthracite coal, our mines are very near or upon the surface. Even including the anthracite mines, which are deepest, they are all worked or can be worked at a less cost of labor, measured by the number of hours or the number of days per ton of product, than the mines of any other country. Therefore, although the rates of wages are higher, the product of coal costs less. Yet we deny ourselves this huge advantage of ample resources and cheap and effective labor by the obstructions that we have put in the way of the import of crude or raw material from foreign countries. That seems to be a paradox, but it is not. With respect to iron ore, for instance, there are certain kinds of iron ore which can be imported and used with our own at points upon the coast. If they are admitted free of duty, a greater conversion of our own ores with these will take place; if they are taxed, it will not. The producer of iron ore in this country denies himself a larger market than he might have by this obstruction to the import of foreign iron ore.

Again, no coal can ever be carried from Alabama to Massachusetts, whether there is a duty on the coal or not, but if the duty on coal is taken off those who are engaged in Massachusetts in the conversion of pig iron into higher forms, it will increase their demand upon the iron furnaces of the South or elsewhere, and will increase the consumption of iron instead of diminishing it by the free use of Nova Scotia coal.

Again, the cost of fuel to the cotton mills of New England is a very heavy item. That is kept higher than it would be by the duty on coal. Take that duty off and the New England cotton factories will be in a position to work more cotton.

The greatest loss, however, to this country, and especially to the South, is in the fact that down to a very recent period, while the producers of iron did not secure to themselves or to their workmen an additional price for their iron equal to the rate of duty imposed on foreign iron, yet that duty did maintain a disparity or higher price of iron in this country than in Europe for many years. In the ten years ending 1891, if we take a similar article of founding iron at the prices at which it was supplied by English and German furnaces to the consumers of iron in Europe and take a similar quality of foundry iron in this country at the price at which it was

supplied to the consumers of this country, taking, I say, these two kinds of iron as a standard, we find that the consumers of iron paid \$70,000,000 a year on an average for ten years more than their competitors paid for a similar quantity in Europe—a handicap on consumption of \$700,000,000 in ten years. This disparity in price has protected the consumers of iron abroad and prevented us from competing with them. It is true that we are the largest consumers of iron in the world, but the world is hungry for iron. There are 1,000,000,000 people in the continents of Asia, Africa, South and Central America, Mexico, Australia, etc., who are hungry for iron. Now, it appears that even while we are subjected to this disadvantage or disparity in the cost of iron, we yet export locomotive engines, agricultural tools and a great variety of other articles made of iron and steel because we have the cheapest labor, and that cheap labor more than counterbalances our disadvantage in the price of iron, but we have been unable to build an ocean steamship owing to this disparity in the price of iron and steel.

Now let us look at what we have saved the English ironmasters by protecting them. Their deposits of coal suitable for coking are approaching exhaustion. The cost of production is very high, although their wages may be lower, and the price is very high. Their supply of fine ores for making steel is mainly derived from Spain and Sweden, and these deposits are approaching exhaustion. The price is advancing, and the English steel-makers are becoming more and more incapable of competing with us. They do not care very much for this market, provided we protect them, as we have, in the control of all the other markets for iron and steel of the world. They laugh in their sleeves at our folly. What would happen if all duties were taken from coal, ores, pig iron, ingot steel bars and rails? The English iron and steel-makers would be wholly incapable of meeting any considerable additional demand without such an advance in the cost as would forever assure to this country the paramount position not only in supplying ourselves, but in supplying the whole world, and even England itself, with heavy machinery, with locomotive engines and with the other appliances which are so necessary in civilized life. Our flag would again be hoisted over steel steamers outnumbering the tonnage of the rest of the world within a very few years.

It is for these reasons that if I were the owner of iron or coal lands, coke ovens or iron furnaces, or even of rolling mill or steel works, I would demand from legislators in Washington to remove all obstructions by which my own interests are badly affected and my enterprises retarded in their progress to the full standard of their right development.

In conclusion, you will remark that the prosperity of this country as a whole depends in greatest measure on the prosperity of that part of the population, constituting about one-half, which is occupied in agriculture. More than one-half the freight service of the railroads is devoted to moving the products of agriculture. More than one-half the machinery of this country, which is made of iron and steel in greatest measure, is devoted to the conversion of the products of agriculture—food and fibres—into their final forms. More than one-half of all who are occupied in trade and transportation are occupied in distributing the products of agriculture. We now produce more grain than we can consume, more provisions than we can eat, more cotton than we can spin. The home market of the farmer depends upon the free export of the excess of all our principal farm products, both food and fibre, and upon what that excess will bring for export the price of the whole crop of cotton and of

grain depends. The home market for iron and steel has been mainly created in the service of the farmer and of the railways which serve the farmer. The demands of agriculture have been the paramount element in establishing the prosperity of the producers of iron and steel. Anything that endangers the farmer reacts in greater measure upon the producer of iron and steel. A tariff which obstructs the import of crude materials which are used in the arts injures the farmer more than anything else that can possibly be devised, except a base or fluctuating kind of money.

Outside the population of the manufacturing states of Europe which depend upon us for food and fibre and may soon depend upon us for iron, steel and even coal, there are 1,000,000,000 inhabitants of great continents who neither produce iron or steel or machinery, and who now produce few, if any, of the goods and wares that are made by machinery. The consumption of iron and steel of these great continents and nations can be doubled, trebled or quadrupled in a very short number of years, provided they can exchange their crude and partly-manufactured articles directly with us for the tools, implements and machines which they are learning how to use in increasing quantities. Single orders are on record from South America for steel plows to the number of 25,000. Is it not folly for the producers of iron and steel in this country, who can command the cheapest labor in the world, when measured by the unit of products, and who can deliver their products at the lowest cost of labor, coupled with the highest wages per unit of product, to permit the government to obstruct and retard their own progress and to impair the prosperity of the farmer by taxing the crude and partly-manufactured materials with which these great continents can pay, and only in which can they pay? All commerce, with the exception of small balances, is but an exchange of product for product.

It is for the reason that free trade in iron and steel, even with Great Britain, will probably—almost surely—advance the price, advance the wages and advance the cost there without affecting our own prices and wages, and without retarding our progress toward the paramount control in the production of these foundation metals, that I would, if I were the owner or controller of any of the great iron or steel works in this country, urge upon Congress to take its hand off from my trade and leave me free to manage it for my own best interest.

The same arguments will apply to wool. The price of domestic wool has always been the highest when foreign wool has been most free from obstructive taxes. It will be again when the blind leaders cease to control the blind followers whom they delude. When iron and steel and wool are free, there is not much left of the tariff question except to adjust it judiciously, slowly and surely, so as to get the largest revenue with the least interference with the freely-chosen pursuits of the people.

If your readers have followed my reasoning closely they will understand the reasons why I expect active and prosperous conditions of trade at a very early date, either after the new tariff bill has been enacted or after its exact conditions have become well known.

This country never entered upon a year of greater promise than this year 1893, so far as the general conditions of production and distribution were concerned. While it is true that the existing system of taxation on foreign imports which are necessary in the processes of our domestic industry has affected the general welfare in an adverse manner, it is also true that we can adjust ourselves to almost any kind of revenue legislation and yet thrive, such is the necessity of other parts of the world for great products which we can furnish at the lowest cost and from which our high rates of wages are derived.

Tampering with our currency and degrading our standard of value by legislation is, however, an evil that even this country cannot stand without disaster. The recent non-commercial panic came like a thief in the night because of the distrust of our monetary system, which had been brought on, I am sorry to say, in very large measure by the action of the Southern senators and representatives. This panic, exceeding in its intensity anything that I have ever known in over fifty years of business experience, has caused widespread disaster. I think it has cost the Southern States a cent a pound on more than half their cotton crop by stopping the Northern mills using the largest amount of cotton at the most important period of the year, namely, the opening of the season. The reckoning will come when the causes of these evil times are fully comprehended. The danger has passed of degrading our unit or standard of value.

There is a great gap in the supply of goods; the shelves of the shopkeepers are empty; the stores of the middleman are vacant, but small stocks exist in the hands of the manufacturers, who, by stopping their works, have avoided a greater danger of temporary excess.

The world is hungry and must take our food supplies. The cause of panic having been removed, the course of trade will soon resume its accustomed way, and by so much as it has been depressed in the near past will it become active in the near future, provided the misrepresentatives of various sections of the country who desire to keep these questions open and to play politics with the business interests of the country are suppressed with a stern warning that prompt action is expected of them, and will be demanded in terms which they cannot resist if they attempt to.

EDWARD ATKINSON.

Undemocratic, says General Wheeler.

WASHINGTON, D. C., December 13.

Having in my pocket a proof-sheet of Mr. Atkinson's argument in favor of free ore and coal, which appears elsewhere in this issue of the MANUFACTURERS' RECORD, I handed it to Gen. Joseph Wheeler (who at twenty-eight years of age was a lieutenant-general in the Confederate army, and who has been in Congress from Alabama since 1880) and asked him to read it and tell me what he thought of it. Now, inasmuch as General Wheeler's opinions reflect the views of a majority of the thinking people, at least, of Alabama, if not of the entire South, the talk I have just had with him is well worth publishing as a practical, if not theoretical, answer to the position taken by Mr. Edward Atkinson:

"Mr. Atkinson's argument," said General Wheeler, "may be well enough in theory, but it would take half a century for the South to begin to get any of the benefits from free coal and free ore. Look at the years and years it has taken to materialize just a little the theory that the South is the natural place for the manufacture of cotton. What would become of our mining interests and our furnaces while this theory was being worked out on the lines laid down by Mr. Atkinson in respect to ore and coal?"

"The people of Alabama are not protectionists, but they realize that a large part of the necessary revenues of government must be derived from tariff taxation, and their position is that a tariff bill, to be fair, should not have a higher tax on articles they are compelled to buy than upon articles they have to sell.

"So far as I can see, Mr. Atkinson is proclaiming sound New England doctrine, but rank heresy from the standpoint of the people of the South. Free coal would simply be a subsidy to New England mills paid by the miners of the two Virginias. Free ore would be a subsidy paid mostly by Alabamians. Any coal or iron man can

tell you the amount of those subsidies. My position in a word is, that while free coal and ore and lumber would be a good thing for New England, it would be a disastrous thing for the South. Grant that in the long run free coal and ore may be turned to the advantage of the entire country, it is inequitable that the first shock of it should fall upon a section which can ill stand any more shocks than it has had. As free trade is impossible, some protection is inevitable. If any section is to be sacrificed, it ought not to be the South. He is a poor patriot who makes a scapegoat of his own country.

"It is true that some people in the South, even in Alabama, advocate free coal and ore, but I do not think they realize what would be the effect of it. For instance, when asked why should Alabama fear the importation of these commodities, they understand by this that there is wanted a tariff to keep ore and coal from being brought to Birmingham. It does not occur to them that the effect of free coal and free ore would be to remove the iron industries from the interior to the seaboard. This would mean the utter paralysis of the existing industrial regions while this change was being made.

"You can appreciate the difference between theory and practice by looking at the cotton question. Mr. Atkinson has, I think, all along agreed that the South was the natural, and therefore the best place for manufacturing cotton, and so it is. But witness what little progress has been so far made. Here it is, nearly thirty years after the war, and what do we find to be the relative position of the North and South in the number of bales taken by the mills of the two sections? For the census year there were taken by Northern mills 2,130,000 bales, Southern mills 555,000 bales of 400 pounds each. And yet in course of time these figures will be reversed.

"And so, while for the next generation free coal and free ore may be desirable, any such change now would be too violent a wrench for even so favored a region as the South to stand.

"As I have told you, I never was a free-trader, but no out-and-out free-trader, especially if he be a Southerner and true to the interests of the people of the South, can consistently favor free coal and iron ore, for that would be only partial free trade—free trade in the things his own country produces.

"The Wilson bill in its present shape is unfair. The constitution contemplates a tariff for revenue, and it is such a tariff which the democratic party demands.

"If we place half the imports on the free list, they produce no revenue, and this necessitates a high duty upon other articles, which would result in their being unduly protected.

"Under the present duty of seventy-five cents a ton the imports of iron ore have some years exceeded 1,000,000 tons, the average being about 800,000 tons annually.

"Certain capitalists of Boston and other points on the Atlantic coast who have invested in foreign ores and coal demand that these products shall be free, upon the ground that they are raw material.

"On the other hand, it is contended that the average value of iron ore in the mine is only about ten cents a ton, and that the average cost of mining iron ore in the United States is \$1.06 a ton.

"We have various explanations as to what is meant by raw material. Some limit it to articles the values of which are not due in any considerable degree to labor.

"If that is accepted it would not include either iron ore or coal. Others classify all materials as 'raw' which are used by the manufacturer.

"By this rule iron ore is raw material to the pig-iron manufacturer, pig iron and spiegel iron is raw material to the steel

manufacturer, billets are raw materials to the rod manufacturer, rods are raw materials to the wire manufacturer. In the same line, wheat is raw material to the millman and flour to the baker, cotton to the spinner, thread to the weaver and cloth to the clothing manufacturer.

"Besides the work of actually mining iron ore, a vast amount of labor must be expended to prepare the plant; then railroads must often be constructed and labor employed in its transportation to the furnaces. In 1889 the capital invested in iron-ore plants in the United States was \$109,766,199, and 38,727 persons were directly engaged in those mines, with annual average earnings of \$409, and this investment and employment includes only a small part of the capital and labor which is indirectly interested in the iron-ore industries. Many of these auxiliary industries will suggest themselves, and notably you will appreciate how keenly the railroads of the South would feel any reduction in the output of iron ore from mines in their vicinity.

"To give some idea of the extent of these auxiliaries to ore plants, I will mention that the capital invested in railroads, vessels and docks which are used exclusively by the Lake Superior companies for iron-ore transportation is reported at \$111,569,963.

"Ores low in phosphorus, commonly called Bessemer ores, are by no means confined to the Lake Superior district. Besides those found in North Carolina and other parts of the South, they are being developed in northern New York and northern New Jersey, where, by the electric process, poor ores are concentrated so as to contain at least 68 per cent. of metallic iron.

"Capitalists of the United States have invested largely in iron-ore beds of foreign countries, and arrangements have been made by which these can be extended.

"The Juragua Iron Co., which is composed of officers and stockholders of the Pennsylvania Iron Co. and Bethlehem Steel Co., have already invested over \$2,000,000 in Cuba, and are now prepared to ship iron ore to the United States at the rate of 2000 tons a day, and, in view of free ore, other companies are preparing to ship largely to this country, not only from Cuba, but from Spain, Elba and Africa.

"What has been said about iron ore applies almost with equal force to coal.

"The Boston people want free coal as well as free ore.

"We were told that if Congress would grant this demand Massachusetts would always be democratic, but just as the committee of ways and means seemed about to grant the request the old Commonwealth hits us in the face with 35,000 republican majority.

"Preparatory to a free-coal tariff a Canadian company has been organized and chartered by the Dominion government to mine, transport and sell Nova Scotia bituminous coal. The capital is \$18,000,000, and much of the stock is owned in Boston. Henry M. Whitney, of Boston, is president, and the other Boston directors are Messrs. Dimock, Pearson and Winsor. It is expected that the American directors will secure free-coal legislation. Sir Donald A. Smith, K. G. M. G., is one of the Montreal directors. These mines have been worked for some years.

"No representative from Alabama has advocated free trade. I have never deviated from the position I expressed ten years ago in these words: 'It seems to me that the tariff question should be regarded as a problem of political economy, the solution of which would be to find what laws will do most towards stimulating and building up the industries of our country. To attain this I think the tariff must be revised so as to be fair to all interests, so as to encourage a trade with foreign nations, and so as to bear heaviest upon articles of luxury and lightest upon articles of necessity.'"

I asked General Wheeler what he

thought of the idea advanced by General Duke, that inasmuch as we of the South had invited outside capitalists to come and develop our resources, we are under a certain moral obligation to see that these outside capitalists in any revision of the tariff shall be fairly dealt with.

"Some of our people," General Wheeler said in conclusion, "are being charged with inconsistency for opposing this free ore and coal and lumber proposition. For an exemplar in this respect they have no less illustrious a patriot than Daniel Webster, who in 1824, when taunted with having been a free-trader a few years before, retorted that a change of conditions had made necessary a change in opinions; that when he was a free-trader his people were engaged in commerce, but that by legislation their commerce had ceased to be profitable, and that they had invested their means in manufactures, and that since manufactures had been thrust upon them, it was his duty to see that those manufactures had fair play." THOMAS P. GRASTY.

The Value of Peanuts.

Mr. Edward Atkinson writes to the MANUFACTURERS' RECORD as follows in regard to his letter of last week as to the value of peanuts to the South:

"Since my first memorandum on peanuts was written I have had the good fortune to meet a gentleman who perhaps did more than anyone else in the practical development of the cottonseed-oil industry in this country, and who is thoroughly informed on the general subject. He states that there is a very large manufacture of peanut oil in Marseilles, France, and a considerable amount in England, the nut used being imported from Africa under the name of "Arachides," a name evidently derived from the botanical name "Arachis." He states that these African nuts are very rank and oily, and somewhat larger than our American variety. Whether they correspond to the East Indian varieties I am not informed.

"If our consular service were what it ought to be, such facts as these would long since have been made known in this country. It is more than probable that a great many people have been eating peanut oil refined and flavored with olives for many years imported from Marseilles. When consular appointments cease to be given under the spoils system, and when consuls are selected with a view to their capacity to serve this country, each one of these new lines of industry may be developed by information derived from them.

"It is very probable that consular reports have been made on this subject in the past years, and it is admitted that there are a number of very competent consuls who have done excellent work even under the present bad system of selection, yet none but an expert can find these valuable reports in the mass of rubbish in which they are buried. True consular service should be under a discriminating head in Washington, who would know how to edit the reports, and whose attention would be immediately called to any new or valuable information on such a subject as this one.

"I happen to have some connections with Marseilles, and it is my intention to secure information both in regard to the Arachides, the oil, the meal and other matters."

What a Virginia Paper Says.

The Wilson bill might appropriately be titled, "a bill to make the Eastern manufacturer richer and the Southern producer of raw materials poorer."—Petersburg (Va.) Index-Appeal (Dem.)

It is rumored that the Newport News Shipbuilding Co. will soon commence building several large steamers in addition to the three for the government, for which the contract was received last week.

CAROLINA'S BESSEMER ORES.

What a North Carolinian Claims as the Steel-Making Possibilities of that State in Competition with the World.

SALISBURY, N. C., December 6.

Editor Manufacturers' Record:

It affords me pleasure to send you the following information concerning the iron interests of this State. The matter is of especial interest, now that the tariff question is again before us, involving many millions of dollars which have been invested on the protective basis, and which will be lost if the tariff bill as now proposed should pass. Both Northern and Southern furnaces would be so crippled as to be compelled to remain in idleness, or the alternative is to place our labor on a footing with the cheap labor abroad by reducing wages. This would be felt by merchants and all other classes of business men, and the farmer, while he could buy some of his supplies for less, would not receive so much as now for his produce, because the mechanics working at pauper rates of wages would not be able to pay high prices for farm products.

However, regarding the effect upon our industries of the proposed removal of the tariff from iron ore, such a course opens a market for the cheap ores of Cuba, Spain and Africa and the coal of Nova Scotia, so that the prices of our home product will have to come down to that level. While this may help the coast furnaces and mills, it will work incalculable injury to the industries of the interior, and but few of them can stand it.

Considered especially as to its effect upon North Carolina, it must be noted first that this State is peculiarly situated both geographically and geologically. As to the former, it lies on the coast and also very near to the coal of Virginia. Geologically its iron ores are different from any of the Eastern or other Southern ore-producing States. The ores of Virginia, Tennessee, Kentucky and Alabama all belong to the paleozoic, carboniferous and other kindred eras, all formed since the age of fossils, and hence all contain phosphorus, and none are suited for the manufacture of Bessemer pig or steel. The ores of North Carolina belong almost exclusively to the Laurentian and Huronian periods, and contain little or no phosphorus.

When I was connected with the North Carolina Steel & Iron Co., at Greensboro, I wrote a number of articles on this subject, and shall now use some of my former arguments. Practically all of the ores that go into the manufacture of Bessemer steel come from the lake region, though some of the seaboard steel works use Cuban and African ores.

To begin, it will be well to give some distances that coke and ore must be hauled to make pig iron:

IRON ORE.	Miles.
Pittsburg from lake mines, all rail.....	945
Pittsburg from Cleveland, Ohio, all rail.....	150
Pittsburg from Ashtabula, Ohio, all rail.....	127
Add to these distances 800 miles by vessel over the lakes and two landings.	
Pittsburg from Philadelphia, foreign ores.....	354
Chicago from Marquette, all rail.....	401
Chicago from Ashland, all rail.....	475
Chicago from Bessemer, all rail.....	425
Chicago from same points by lake vessels.....	770
Steeltown, Pa., from Erie, all rail.....	335
Steeltown, Pa., from Buffalo, all rail.....	350
Steeltown, Pa., by lake vessels to Erie.....	378
Steeltown, Pa., by lake vessels to Buffalo.....	948
Steeltown, Pa., from Philadelphia, foreign ores.....	108
Milwaukee from Ashland, all rail.....	350
Milwaukee from Ashland, by lake vessels.....	707
Sparrow's Point, Md., from the lake mines.....	1250
Sparrow's Point, Md., from Cuba, Spain and Africa.....	No haul
Cranberry, N. C., ores at the mines.....	40
Greensboro, N. C., from Ore Hill mines.....	21
Hot Springs, N. C., from the mines.....	21

Other places to be named below in North Carolina would have no haul, because the furnaces would be located at the mines.

COKE.	Miles.
Pittsburg from Connellsville.....	56
Chicago from Connellsville.....	525
Chicago from Pocahontas, Va.....	700
Steeltown, Pa., from Connellsville.....	245
Sparrow's Point, Md., from Connellsville.....	300
Milwaukee, Wis., from Connellsville, all rail.....	610
Cranberry, N. C., from Pocahontas, Va.....	238
Greensboro, N. C., from Pocahontas, Va.....	240
Hot Springs, N. C. from (Pocahontas district) Doran, Va.....	250

Other North Carolina localities vary from 100 to 200 miles nearer or further as to points of location.

In England nearly all of the ores are imported from Spain and Africa, and, when the furnaces are not located on tidewater, they have from twenty-five to 100 miles haul to the interior furnaces. The relative coke hauls vary from twenty-five to 100 miles, according to location of the furnaces.

It will be seen from the tables of distances that the North Carolina ores are practically at the furnace stockhouses, while other points have from 400 to 1000 miles to haul, where native ores are smelted, and all except Sparrow's Point, Md., have from 108 to 354 miles to haul the imported ores, besides paying the freight charges by ocean vessels. How is it with the coke? Pittsburg is about the only point that has any advantage over North Carolina, having a haul of fifty-six miles, costing seventy cents per ton freight charge. Chicago has the Illinois coke at her doors, but finds it cheaper to use Connellsville coke with a haul of 525 miles, and still cheaper to haul Pocahontas (Va.) coke 700 miles, and is now using it in preference to any other.

The haul from Connellsville to Steelton or Sparrow's Point is greater than from Pocahontas to Cranberry, Greensboro or Hot Springs, N. C. The average percentage of iron in North Carolina ores is about equal to those of the lake region, or very nearly so, and would be if they were as carefully culled and handled as those lake ores are. The lake ores range from 60 per cent. to 66 per cent. and the North Carolina ores about 60 per cent. Foreign ores are about the same.

It takes, on an average, one ton of coke to smelt a ton of pig iron from the lake ores, and the same quantity will smelt a ton of pig iron from the North Carolina ores. Most of the North Carolina ores have an advantage over the lake ores in the quantity of lime that it requires to flux them, in that the former are usually almost self-fluxing. I have known the little furnace at Cranberry, when run on charcoal, to go for three months without using as much as one ton of limestone, the ore being self-fluxing. Such is also the case with many like magnetites to be found in the State.

Then, let us go into some statistical statements as to the cost of making a ton of pig iron in North Carolina. Take Greensboro as one point for a basis. Mr. S. A. Richards, of Chicago, formerly superintendent of furnaces for the Joliet Steel Co., gives the following figures as to making pig at the Ore Hill mines.

Estimate of cost of pig iron at Ore Hill, N. C., made May 4, 1886, verified in May, 1890, as follows, viz:

55 per cent. ore at seventy-five cents per ton.....	\$1 30
100 bushels of charcoal at five cents.....	5 00
Lime at sixty cents.....	25
Labor, \$1.00; maintenance, fifty cents.....	1 50
Repairs, fifty cents; interest, fifty cents;	
salaries, fifty cents.....	1 50

Total cost.....\$9 50

From this may be deducted \$1.50 per ton if coke is used.

Cost per ton.....\$8 00

Then add freight on ore to Greensboro.....50

Cost per ton of Bessemer pig at Greensboro.....\$8 50

These ores belong to the North Carolina Steel & Iron Co.; hence the low cost of production. What kind of ores are they? They are anhydrited brown hematites, found in the metamorphosed hydro-mica schists, and red hematites of the metamorphosed Huronian slates. The brown ores have an average of 55 per cent. iron, less than 2 per cent. of water, 5 per cent. silica, no sulphur and .003 per cent. of phosphorus. The red ores are richer and run as high as 68.74 per cent. of iron and not a trace of phosphorus. What better Bessemer steel-making ores are wanted than these?

The present price of furnace coke at Connellsville is \$1.25 per ton, and freight thence to Pittsburg seventy cents; in round numbers \$2.00. At the same rate it costs

Chicago not less than \$4.75 per ton; Steelton and Sparrow's Point can lay coke down for about \$3.00 each. So also will it cost \$3.00 at Cranberry, Greensboro and Hot Springs, N. C., to lay coke down in the stockhouse from Pocahontas, Va. Thus we have the cost of one ton of coke to make a ton of pig.

Now for the ores. Taking the price of ores at the lake mines and their various hauls, whether all rail or by lake vessels and then by rail, to lay down at the four points named they would be worth delivered on an average of eight cents per unit of iron, lowest price; then a 60 per cent. ore at eight cents per unit would cost in the stockhouse \$4.80, and one and two-thirds tons of ore to make a ton of pig \$8.00 per ton of pig. Let the cost of lime, labor, maintenance, repairs, interest and salaries, as given by Mr. S. A. Richards, which, he says, are the Joliet costs, obtain throughout the estimates, and see what we get as the relative costs:

RELATIVE COSTS PER TON OF BESSEMER PIG IRON.

	Pitts- burg.	Chicago.	Steelton.	Sparrow's Point.	Greens- boro.	Cran- berry.	Hot Springs.
1½ tons 60% ore at 8 cts. per unit..	\$8 00	\$8 00	\$8 00	\$8 00			
1½ tons 60% ore, mining, freight and royalty.....					\$2 25	\$1 50	\$1 65
Lime, 25 cents; labor, \$1 00.....	1 25	1 25	1 25	1 25	1 25	1 25	1 25
Maintenance, 50 cts.; repairs, 50 cts.	1 00	1 00	1 00	1 00	1 00	1 00	1 00
Interest, 50 cts.; salaries, 50 cts.....	1 00	1 00	1 00	1 00	1 00	1 00	1 00
Coke in stockhouse.....	2 00	4 75	3 00	3 00	3 00	3 00	3 00
Total cost per ton.....	\$13 25	\$16 00	\$14 25	\$14 25	\$8 50	\$7 75	\$7 90

The average costs in Birmingham and other English iron and steel-making cities is about \$8.00 per ton of pig.

Now you can see how North Carolina can make a ton of Bessemer pig for what it costs Pittsburg, Chicago, Steelton, Sparrow's Point or any of those Northern and Western furnaces to put the ores in their stockhouses, and that it can be made as cheaply here as in Birmingham and other English iron and steel-making cities. Hence the "ill-wind" of the tariff might blow good to North Carolina. Let us go a little further. In the same ratio that Bessemer pig can be made in North Carolina, so can steel rails be produced. You, like others, may say that it cannot be done; that my figures are wrong, and it is impossible for Northern furnaces to live when the cost of making pig is from \$13.00 to \$16.00 per ton and the selling price at present Pittsburg quotations \$10.50 to \$11.00 per ton, and steel rails at \$22.00, when it costs them more than that to make them, yet such is the fact. Why they do it is only known to them. It is a fact that nearly all of their furnaces are either out of blast or banked, and they are only selling the stock on hand, and unless the present tariff is kept on they will all have to close. If it costs these Northern and Western furnaces so much to make pig and steel rails, why is it that it costs so little in North Carolina? Simply because these furnaces have their ores to buy, while in North Carolina they can buy the ore lands for but little more than the cost of farming lands, own the ores, and instead of paying large royalties and profits to the ore miners, they can own and mine their own ores at a saving. But, you say, you have not got the ores in North Carolina to supply the demand, and if you had, they are not rich enough or they are too high in phosphorus to make Bessemer steel. Now let's see if we have or not. At Cranberry and the extension of that deposit there are hundreds of millions of tons of ore which is equal to, if not superior to, any in the world. It is so well known that it is useless for me to describe it. I know of a dozen other deposits in the same county, Mitchell, while not so large, are equal to it in the grade of ore, and many millions of tons can be cheaply mined out of mountain sides that are hundreds of feet above water level. One deposit in particular, from many analyses made, shows iron, 68 per

cent., with no titanium, sulphur or phosphorus, and less than 5 per cent. silica. See what Greensboro has got. At Ore Hill and the Evans place there is enough 55 per cent. to 65 per cent. ore within the Bessemer limit to supply 1000 tons a day for 100 years. There is a deposit of magnetite near Hot Springs, four miles long, which in one place is developed in a hill 500 feet above water level, as shown in an open cut twenty feet deep, 114 feet wide. How many millions of tons in that deposit? This ore analyzes 60 per cent. and over; titanium, none; sulphur, none; silica, 5 per cent. to 10 per cent.; phosphorus, .002 per cent.; in twelve analyses made at Edgar Thompson Steel Works not a trace of phosphorus was found. There are several other large deposits in the same county known to me belonging to the same geological eras. What of the 12-foot, 14-foot and 20-foot veins of magnetite and hematite 60 per cent. Bessemer ores at Bessemer City, N. C., that are traceable

for miles, and are now being mined and shipped, or the long lines of Bessemer ore veins of Gaston, Lincoln, Cleveland and Catawba counties that are found in the Laurentian schists without a perceptible trace of phosphorus in many instances? In Stokes county there is a 16-foot vein of gray specular ore, traceable for a long distance, that has above 60 per cent. of iron and less than .002 per cent. of phosphorus, besides the many smaller deposits of Bessemer magnetites. In Watauga county there are numerous veins of martite—one, especially, which can be followed for miles along the Blue Ridge, and is eight feet wide, showing by analyses, iron, 67 per cent.; sulphur, none; phosphorus, a trace; silica, 5 per cent.—besides numerous deposits of Bessemer magnetites. Ashe county has millions of tons of Bessemer magnetites. Alleghany and Wilkes counties have some of the finest and purest magnetites that I or anybody else ever saw. Burke county has some large deposits of as good magnetite as can be found, and in one place there are over 100,000 tons of 53 per cent. brown hematite with only a trace of phosphorus in it, lying loose, practically, on a pile in a sag on the summit of a mountain, with the vein traceable thirty miles. The North Carolina Bessemer Co. owns in McDowell county immense deposits of a similar brown hematite (53 per cent. iron, .003 per cent. phosphorus) ore; in fact, it is the same vein just described. Not far from this point, on the summit of a mountain, there is an exposure of a 20 foot bluff of magnetite that runs nearly the length of the mountain, and along the east base of the Blue Ridge have been located many deposits of like ore in this county. Passing through Rockingham, Guilford, Forsyth, Davidson, Davie and Rowan counties are a series of titaniferous magnetite veins with from 60 per cent. to 66 per cent. of iron and barely a trace of phosphorus. The 5 per cent. to 13 per cent. of titanium that is in the ore is only in the gangue of pyroxene, actinolite and chlorite, and by crushing and washing can be removed, so as to make available these large and valuable deposits of ore. Some of the mountains of northern and western Caldwell county have large deposits of Bessemer magnetites that are similar to those of McDowell and Buncombe counties. Near the University of North Carolina, at Chapel Hill, is a huge deposit of red ore that runs

from 55 per cent. to 60 per cent. iron, but is most too high in phosphorus to be within the Bessemer limit, though with the proper mixture of some of the non-phosphorus ores, could be used. This vein is traceable for miles. Besides these, there are many deposits of Bessemer ores not alluded to in the counties named, not taking into account the mill and foundry ores of some of the more eastern counties of Montgomery, Moore and others, and none of the great area of the tier of counties west of the Blue Ridge, in the southwest part of the State. Does not this look as though North Carolina has enough ores to last for a while?

But what of lime for a flux? That is all provided for by nature.

While the ores found in the Huronian and Laurentian eras of North Carolina need but little lime for a flux, there is plenty of it found in the geological faultings. In Stokes, Surry and Yadkin counties are immense deposits of white and gray limestone close enough for the ores of the eastern part of the State. At King's Mountain and near Bessemer City are large limestone deposits for the southern ores found near by, and in McDowell county are two or three large deposits of splendid marble and blue limestone that will make the best flux, while at Hot Springs, where the Laurentian and subcarboniferous are in juxtaposition by their anticlinal and synclinal faulting, causing the hot springs, are to be found mountains of 90 per cent. carbonate of lime. So, also, along the hills and valleys of Valley river, in Cherokee county, are found several kinds of beautiful marble and limestone, as well as on the Nantahala river and at Red Marble Gap. This forever settles the doubt as to flux.

As to coke, there is no good coal in this State that will make a coke that will serve the purposes as well as that of the Pocahontas district, from which the supply will have to come.

Now, I have established the fact that there is an ample supply of high-grade Bessemer ores in North Carolina; that they can be had convenient to railroad and at very low figures, to enable the furnace companies to put their ores in the stockhouses for about what it costs the Northern and Western mines to mine it, and not counting the value of the ore, handling and freight charges to the furnaces, all of which I have shown to be \$8.00 for enough ore and other material to smelt a ton of their pig. This being the case, why is it that none of the ores have been utilized and the State not dotted with furnaces and steel plants? The prevalent reason is found in the fact that most of the plants, and those with capital invested in them, or who would invest, are located in the North and West, where they have been making enough money to satisfy them at home by the operations of the existing tariff laws—laws that were just and equitable, and which have been the greatest boon to this country, because they enabled the United States to reduce the cost of steel rails that were \$170 per ton for English rails in 1867 to the present price of \$22.00 per ton for our rails; made us the greatest iron and steel-producing country in the World, and enabled us to build all over the country thousands of miles of railroads that never would have been thought of but for this tariff. The simple building of railroads, which are the greatest civilizers that exist, has developed the country, rendered distant wild and dormant sections of the country wealthy, built cities and manufactories, while the remote farms blossom as the rose because of them. If the pioneers of the iron, and especially the steel, industry of the United States have amassed stupendous fortunes in doing what they have done by their efforts, assisted by the protective tariff of the government, they are entitled to the benefits that have accrued to them, for in doing so they have rendered a boon to humanity that is but second to the inde-

pendence under which we live; and if they are now the lords, barons, taskmasters, usurpers and vile beings that they are accused and supposed to be, they will have the recompense they have justly earned, and which will offset and more than counterbalance all accusations at the great rendering of accounts done in the body. Consequently, if for nothing else than this, it would be suicidal in this Congress to take from them the only protection they and those employed by them have for perpetuating the good already done, and practically confiscate their investments. Notwithstanding, the wind that blows them ill will blow good to North Carolina and do for her what it has done for others. Does "the end justify the means?" To close up the industries that are now staggering under a load that is almost too great to live under is not right, though it may inure to others; and will it do for us in North Carolina what we hope, by building the furnaces, steel plants and other like manufactories among us? So may it be.

But what of mill and foundry iron ores?

It does not follow that because most of the ores of North Carolina are Bessemer ores, there is no other kind here. There are millions of tons of the finest kind of limonites scattered all over the State, and it will be of interest to say something of them in comparison with the ores of Virginia, Tennessee, Kentucky and Alabama. But few of the limonite iron ores of this State will run below 50 per cent. in iron; hence the same estimates that obtained as to Bessemer pig will also apply to the mill and foundry pig or within a very few cents per ton of cost to smelt. Statistics of 1890 showed that it cost Virginia furnaces to make pig as follows, viz:

Milnes furnaces.....	\$12 55
Buchanan furnaces.....	13 04
Roanoke furnaces.....	12 58
Pulaski furnaces.....	11 95
Cripple Creek furnaces.....	11 03

and so on for an average. That it cost Tennessee and Alabama furnaces—

Lowest cost.....	\$ 8 00
Highest cost.....	13 00

and about the same in Kentucky. It is presumed that the costs are somewhat lower now than then, but the general average is \$10.00 to \$12.00 per ton. This is because but few of their ores smelt above 40 per cent. in the furnaces; so they have to mine, at a cost of not less than seventy-five cents per ton, two and a-half tons of ore to a ton of pig; it takes not less than half a ton of limestone to flux and from one and a-quarter to two tons of coke to smelt, owing to the great amount of silica in the ores and the bulk and burthen of material in the furnace, to make a ton of pig; hence it can be very readily seen why it costs so much to make pig where all the constituents, ore, lime and coke, are in juxtaposition, which again leaves North Carolina in the lead for cheap pig, whether Bessemer or mill and foundry.

Before I close it will not be out of place to tell of something else that North Carolina has, as this is the age of steel and progression. The world is now wanting nickel-steel and nickel-steel armor-plate for navies. It is not generally known that not far from some of the immense deposits of Bessemer magnetites there is a long line of vein matter carrying nickel; that it is known to contain from 3 to 34 per cent. of nickel; that associated with it are large bodies of high-grade chromic iron ore; that the lead is crossed by two lines of railroad; that the nickel ore is carbonates, oxides, chlorides and silicates, and that both the nickel and chromic iron ores are free from arsenic, bismuth, sulphur and phosphorus. I know that it is in place, for I have followed it over fifty miles. This ore, situated as it is, does not need a protective tariff that is taken off of nickel, and could be worked to pay in competition with the arsenic-sulphide nickel ores of Canada in all the uses to which nickel is put. This is not all, for not forty miles off from the

large deposits of Bessemer magnetites, nickel and limestone are immense deposits of high-grade manganese that lie in the mountain sides within five miles of the railroad, and which is the only lacking constituent in the manufacture of steel from raw material, save the money to do it with.

Again, I repeat that, taking all these facts into consideration, there is no other like area of ore-bearing territory in America so advantageously situated for iron, steel and armor-plate making, and which can be done at a profit without a cent's worth of protective tariff.

Let me say in closing that what I have stated is not in bragadocio or to mislead, for if it be doubted, I will take pleasure in showing to the proper parties the correctness of my figures and estimates and the location and character of the deposits of ores enumerated; nor do I write to depreciate the values of other localities, but to show to the world through your columns what there is in North Carolina, without prejudice to any. We can compete with the world, without protection, if we had the capital to do it with.

J. J. NEWMAN, M. E.

Southern Textile Notes.

THE Gaffney Manufacturing Co., of Gaffney, S. C., has placed an order with the Charlotte (N. C.) Supply Co. for the new machinery recently decided upon. Twenty-eight hundred new spindles will be added, giving the mill a total of 10,000 spindles.

THE extensive additions to the Riverside Cotton Mills, at Danville, Va., are progressing well and will probably be completed by the expected time, May 1. It is said that from 1000 to 1500 new operatives will be employed, and a company will be organized to erect cottages for them.

THE new Lanett Cotton Mill at West Point, Ga., is progressing rapidly. The mammoth engine of 1000 horse-power has arrived, together with forty carloads of other machinery, which is being placed as rapidly as possible, so that the plant will probably be in operation by February. When in full operation 27,000 spindles and 700 looms will be running, giving employment to 700 operatives. A large number of houses to accommodate the workers have been erected. Mr. L. Lanier, of West Point, Ga., is president, and Mr. E. Lang, superintendent.

THE Cherryville Manufacturing Co., of Cherryville, N. C., has completed the improvements at its mill and will shortly commence operations. Twenty-five hundred new spindles were put in, making 5000 in all.

THE new mill of the Mooresville Cotton Mill Co. at Mooresville, N. C., is nearly completed and will probably start operations very soon. The outfit of machinery is now being placed in the buildings.

MESSRS. D. L. & J. A. LEWIS, of Sycamore, Ala., have determined to double the output of their cotton mill, and the necessary machinery is now being put in. This is a new plant just started last month, and its daily output of 1600 pounds of goods is sold in Pennsylvania at a good price. The factory is lighted by electricity and has a system of water works for protection against fire. About forty hands are employed.

THE Gastonia Manufacturing Co., of Gastonia, N. C., is operating its weaving plant at full capacity, day and night, with forty looms. Fifteen more looms will be put in shortly, thus giving the mill a weekly capacity of about 37,000 yards of cloth. The product is an extra grade known as fine brown sheeting, and is sold to Northern converters to be bleached and printed. An order for 250,000 yards of goods is now on hand.

MR. FRANK EMERY has been appointed superintendent of the Cannon Manufactur-

ing Co. and the Odell Manufacturing Co.'s mills at Concord, N. C.

MR. W. E. CHESWELL, late of the Laboratory Mills, of Lincolnton, N. C., has been secured by the Courtenay Manufacturing Co. as superintendent of the new mill near Seneca, S. C.

THE Henderson Woolen Mills Co., of Henderson, Ky., has resumed operations at its plant and expects to run on full time during the remainder of the season. This mill is equipped with two (60-inch) sets cards, eighty looms, steam-power and dye-house, and its product is Kentucky jeans. Mr. James R. Barret is president of the company, and James Morning superintends the mill.

THE new sizing mill lately established at Charlotte, N. C., by Eastwood & Co., of Fall River, Mass., continues to meet with much success. Shipments were made last week of 1200 pounds of sizing to the Henrietta (N. C.) Mills and 1200 pounds to the Cannon Mill, at Concord. An order for 1200 pounds of sizing has also been received without solicitation from La Concha, Mexico. The proprietors of this industry are much gratified at the success attending their venture.

A new dyehouse is to be erected by the Leakville Cotton Mills at Leakville, N. C., and work on it will commence very soon.

MR. F. DILLING, of the new Dilling Cotton Mills now building at King's Mountain, N. C., has taken a trip North for the purpose of contracting for an equipment of machinery for his plant.

THE Henderson Cotton Mills, of Henderson, Ky., have secured as superintendent Mr. George W. Daugherty, late of the Victor Mill, at Charlotte, N. C. The Henderson plant is operating 26,000 spindles and 700 looms, producing white goods.

THE new Union Cotton Mills, at Union, S. C., are progressing rapidly toward completion, and operations will probably commence in the early spring. The building is now completed, and the boilers, five in number, of 100 horse-power each, are being put in position. The equipment of machinery is ready for shipment to the mill and will be forwarded shortly. Mr. T. C. Duncan is president of the company, and Mr. W. E. Thompson, vice-president. The cost of the plant, including building materials, two large dams, land for the site, thirty houses for operatives, etc., is about \$45,000.

REGARDING the resumption of operations at the Nashville Cotton Mills, of Nashville, Tenn., Mr. G. M. Fogg writes the MANUFACTURERS' RECORD that a plan for arranging matters to that effect is now under consideration, and that indications for its success are very good.

Chance for Some One's Money.

There is not another city the size of Tampa in the South that has only one bank, and there is not a city in the United States that offers better inducements for another financial institution than Tampa. With its immense commercial interests and diversified resources, another bank established in this city would be one of the best paying institutions in the country.—Tampa (Fla.) *Tribune*.

[The city has over 10,000 population, is on several railways, has a fine harbor and is the centre of a number of large enterprises.—ED.]

It is a very tasty prospectus which has recently been issued concerning Randolph county, Ga., especially Cuthbert. Some very attractive illustrations taken from photographs add to its interest. Considerable information regarding the county's resources is given in concise language, but one of its best features is the many testimonials from people who have found that section desirable for homes.

FINANCIAL NEWS.

The Financial Situation.

The possibility of tariff changes continues to play an important part in the present condition of business, which is little changed from last week, with the exception that more factories have reopened to supply demand for certain articles created by absolute necessity. It is evident that the revival of confidence is to be very gradual. Money still goes begging for investment. Two exports of gold during the week did not tend to improve the situation, but gold-exporting houses say the shipments are not likely to continue, and that those made were on account of special transactions which required immediate specie payments. To give an idea of the demand for bonds abroad, it is stated that Brazil is in the market for a loan of \$75,000,000 and Spain for a loan of \$100,000,000, while India wants authority to borrow \$50,000,000, and these are but a few of the sums the investors of England and the Continent are requested to lend.

A positive indication that the corner has been turned and that we are progressing towards better times is indicated in the statement of bank clearings for November. Reports from twenty-one of the large clearing-house cities of the country, including New York, show that the percentage of decrease in clearings as compared with October, 1893, is .1 per cent. It is 5.1 per cent. less than in September. Excluding New York, the November clearings were 21.1 per cent. less than in November, 1892, compared with 23.2 per cent. less in October, 26.7 in September and 29.8 in August. The bank clearings are a reliable indication of trade, and from these figures it will be seen that in the country at large the improvement is greater than in the immediate vicinity of the metropolis. At Louisville the iron market has been quiet. Buyers are awaiting the action of Congress. General dullness pervades the Chicago market, though there are inquiries for medium-sized orders. Cincinnati reports quietness in all branches and everyone awaiting the outcome of the tariff bill. A bright feature of the Southern business is the statement that the Tennessee Coal, Iron & Railroad Co. has 130,000 tons of unfilled orders, which include several from abroad. The company for November, it is stated, cleared \$20,000 after paying operating expenses and interest due. In other parts of the South reports of corporations show a prosperous state of affairs in many cases. The Frederick Manufacturing & Development Co., as stated elsewhere, has declared a 20 per cent. dividend for the year's business. The demand for securities in the South continues good, as shown by a recent sale of Norfolk 5 per cent. bonds at a quotation above par.

Money Getting Easier in Virginia.

A correspondent of the *Richmond Times*, writing from Clifton Forge, Va., says: "I learn through Mr. George K. Anderson, cashier of the Alleghany Bank, that money is getting much easier, so much so that he has been able to make new discounts, as well as to extend the usual credit to old customers, and that much of the currency now being deposited has the appearance of having been tightly packed away for safekeeping and has not seen daylight for some time. He is confident that the increase of deposits is caused largely by those who withdrew their money during the financial scare, having renewed confidence, and are replacing the money. He furthermore states that last Saturday many merchants here did the biggest cash business ever done, 'boom days' not excepted. I venture to say that this is more than can be said of any other town in the State."

New Financial Institutions.

A Norfolk (Va.) branch of the Cumberland Building and Loan Association has been formed with Thomas Townsend, chairman; Samuel Phillips, vice-chairman; W. L. Land, treasurer; David P. Guest, attorney; Frank T. Phillips, secretary and local agent.

The Buckhannon (W. Va.) Building and Loan Association, of Buckhannon, has been chartered with \$100,000.

Clarence Derrick has been elected president, and J. A. Blunt, cashier, of the Bank of Greensboro, Ala., which has been organized with \$50,000 capital.

The bank to be started in Luray, Va., will be called the Page Valley Bank of Virginia. J. V. Jamison, of Roanoke, is to be president; C. S. Landram, Luray, cashier. The paid-in capital will be \$15,000. The bank will open for business in January, 1894.

New Bond and Stock Issues.

The recent issue of \$100,000 in Dallas municipal bonds has been purchased by New Yorkers for 101.38 and accrued interest.

The city council of Staunton, Va., has decided to issue \$15,000 worth of 30-year 6 per cent. bonds to meet current expenses. The city has a population of 7000, with a real estate valuation of \$1,996,525. The tax rate per capita is \$12.50 per \$1000. The city's securities have always been considered excellent investments.

The Gapland Turnpike Co., of Washington county, intends increasing its capital stock from \$3000 to \$5000. The company owns a turnpike to the summit of South mountain, Md.

The city of Galveston has decided to sell \$300,000 worth of its bonds for defraying the expense of city work. Address Mayor Fly.

Fulton county, Ga., in which Atlanta is situated, will decide by ballot the question of issuing \$200,000 in bonds for building a new jail and improving the county courthouse.

The North Augusta (Ga.) Land Co. has ratified an issue of \$30,000 in debenture bonds to pay for contemplated improvements. Hon. Pat Calhoun is president.

Interest and Dividends.

The Frederick City Manufacturing & Development Co., of Frederick, Md., has declared a 20 per cent. dividend on its paid-up stock.

The Frederick County (Md.) National Bank has declared a dividend of 3½ per cent. on its stock for the last six months.

The Richmond & Danville has paid the interest due on the bonds of the Atlantic, Tennessee & Ohio, its leased line.

Failures and Suspensions.

L. M. Levy, shoe dealer at Little Rock, Ark., has assigned. His liabilities are estimated at \$10,000 and assets at \$14,000.

The court has appointed A. J. Schmeers receiver of the Augusta (Ga.) Brewing Co. The trouble is caused by the failure of the Kentucky Malting Co. at Louisville.

Financial Notes.

It is reported that the Fayetteville branch of the Co-operative Bank of the Carolinas has been closed pending an investigation. The bank has been open but a few months.

THE State Bank of Orange, Va., has decided to discontinue business.

At the annual meeting of the Bank of Guilford, of Greensboro, N. C., the yearly report showed that, despite prevalent conditions, the bank's profits have been greater in the last six months than during the same period of 1892.

MR. M. B. SHELTON has been elected president of the Merchants' Bank of Florence, Ala.

Manufacturers' Record.

PUBLISHED EVERY FRIDAY BY THE
Manufacturers' Record Publishing Co.
 MANUFACTURERS' RECORD BUILDING,
 Lexington and North Streets,
 BALTIMORE.

RICHARD H. EDMONDS,
 Editor and General Manager.
 C. R. MARCHANT, Business Manager.

NEW ENGLAND OFFICE—503 Exchange
 Building, Boston.
 S. I. CARPENTER, Manager.

NEW YORK OFFICE—39 and 41 Cortlandt St.
 Room 90.

CHICAGO OFFICE—535 The Rookery.
 LESLIE W. COLLINS, Manager.

SPECIAL TRAVELING REPRESENTATIVES:
 RICHARD S. EVANS,
 I. S. FIELD.

FOREIGN AGENT—REUTER'S TELEGRAM CO.,
 LIMITED, London.

SUBSCRIPTION, - - - \$4.00 a Year.
 TO FOREIGN COUNTRIES, - - 36s. 6d. a Year.

BALTIMORE, DECEMBER 15, 1893.

MR. WM. E. ASHLEY, of Raleigh, N. C., suggests, through a letter published in this issue of the MANUFACTURERS' RECORD, the holding of a convention in Washington, composed exclusively of delegates from the South who are opposed to free ore, free coal, free lumber, etc., in order to bring as much pressure as possible upon Congress in behalf of Southern industrial interests. What do the readers of the MANUFACTURERS' RECORD think of the suggestion?

THE *Observer*, of Charlotte, N. C., is not only a very live and progressive paper, but it fully appreciates the importance of devoting much attention to industrial matters. Its reporter of industrial news gathers every item relating to the progress of the country tributary to Charlotte, and in that way does a good work for all that section. But this is only one of the *Observer's* many good features. The MANUFACTURERS' RECORD heartily commends its example to every paper in the South that is not closely following the industrial and business progress of its vicinity.

The Spirit that is Making the South.

At a public meeting held in Augusta, Ga., a few days ago to devise ways to push the development of that city, a leading business man said: "It is not a city that makes men, but men that make a city, and I have resolved that I would be one of 40,000 to help make the city." An Atlanta millionaire died last week, and in his will directed that none of his Atlanta real estate should be sold. In one case the spirit of pluck, of determination to accomplish something for one's city and country, is illustrated; in the other we see the absolute faith in the future of his city and section that the millionaire decrees that his local real estate shall not be permitted to get out of the family possession. Here are two of the great forces that are creating new wealth in this favored section—the energy and zeal that untiringly work for advancement, and faith in the future as a future of steady progress and prosperity. All through the South we see what these forces are accomplishing, and from what is now being done we can form an idea of what the future will show.

What of the Future.

A few years ago the world was passing through one of its periodical speculative periods, when business interests of all kinds were expanding and money was abundant. Australia, South America, South Africa and the United States all alike were centres of great activity, and for them all Great Britain furnished capital, not by millions, but by hundreds of millions, reaching in the aggregate even to thousands of millions. Argentine alone, a country of undeveloped resources, mainly devoted at present to agriculture, with a population of 5,000,000 only, and most of them of a non-progressive element, floated nearly \$1,000,000,000 of securities on the English market. Australia and South Africa were not far behind. Throughout the United States there was much activity in the development of new enterprises, the floating of railroad and industrial securities, and in some parts of the South and in much of the West and Northwest this spirit of activity found expression in local real-estate speculations or "booms." Just as the South, or rather parts of it, was at the full tide of this speculative wave the Baring crash came, and since then the whole world has been passing through a period of inactivity or stagnation. One always follows the other. We can no more prevent speculative eras than we can periods of depression.

In common with the world at large the South has felt the depression of the last few years, but it is suffering far less than any other section of our country. The degree of suffering has been in proportion to the degree of activity that prevailed during what is known as the "boom days." The towns in which speculation centred have felt the full effect of the hard times, and even in those that have the most solid foundation of natural resources on which to build, but which "boomed" too fast, there has been much discouragement, and some who have held on month after month without seeing any signs of returning prosperity have almost given up hope. But the South as a whole was much less affected by this speculative fever than has been generally supposed. Its business interests were pushed along steadily and surely, and their strength and solidity have been tested as never before. During the last three years its old towns and cities that did not catch the boom spirit have gone right along building up, increasing the number of their factories, extending those already in operation, and through the country districts new cotton mills, cottonseed-oil mills and lumbering enterprises have been established, not so rapidly, it is true, as during good times, but rapidly enough to have added greatly to the magnitude of the South's industrial interests. Without any hurrah or excitement and without the aid of outside capital, for outside capital has not been going into new enterprises lately, this section has made very decided and substantial progress, the effect of which will be more fully seen when general business activity returns than at present. And many of the towns that were hurt by the "boom" and the subsequent collapse will, if they have good natural advantages, gradually grow to be solid and substantial places.

Out of the depression of the last three

years and the acute financial panic of the summer and fall the South has come with greater credit than it could ever have gained except by such a trial. No other section stood the strain so well. The South passed through this ordeal so creditably because it has a natural foundation on which to build its business interests unequalled elsewhere in the world. This is a strong statement, but it cannot be questioned. The South has the inherent power given by nature to develop a diversity of vast industrial and commercial interests on a more substantial basis than any other section of this country or any other country of the world. It is in the South alone that we find every natural advantage of every other country on earth concentrated. It raises nearly three-fourths of the world's cotton crop; it has one-half of all the standing timber in the United States; it has coal and iron almost without limit, and nearly every mineral that can be useful in the arts and sciences, and a soil that on the average will yield better returns than that of any other section; a climate that is conducive to good health and to cheapness of production of agricultural staples and manufactured goods, and also to cheapness in the cost of living. In the concentration of these things in the South is found the natural strength for future growth and prosperity of this section.

The South has learned much during the last five years. It has learned the power of united effort to draw attention to its resources and attractions; it has learned to have unbounded but justifiable faith in its own future, that gives it the strength to work with tireless energy for the development of its material interests, and it has learned how to discriminate between solid progress and that which is unsubstantial. The work of the past has been the pioneering work of pushing railroads into its mountains, where coal and iron and timber await the world's demands; of educating the people of this country and of Europe to understand the resources of this section, and, in general, laying the foundation for future development.

Immigration is turning this way, and hundreds of thousands of people in the North and West are now looking to the South as their future home. The advance guard is already moving, and from every Southern State reports are constantly coming of the arrival of new settlers, while letters from the Northwest to the MANUFACTURERS' RECORD tell of the general desire of people to get away from that region and move South. With this swelling tide of immigration, the increased confidence of capital in the South as a place of investment, and the solid foundation for a broader and more solid development than any other part of our country enjoys, the South's future is indeed bright. Unwise tariff agitation may possibly temporarily delay the return of prosperity to the country at large, and thus to some extent retard Southern advancement, but the South's business conditions are in much better shape and the outlook more promising than anywhere else, and whatever revival may come in business the South will be the first to feel it.

SIX HUNDRED immigrants in a body arrived in Texas one day lately on the "Cotton Belt" line. Southward the tide of

immigration has turned, and soon we will see a great rush of people from the frozen Northwest moving steadily towards "Creation's Garden Spot"—the South.

North Carolina's Advantages for Making Bessemer Iron and Steel.

THE MANUFACTURERS' RECORD has often referred to the reports on some of the iron-ore properties of South Carolina, in which it has been claimed that there is a practically inexhaustible supply of Bessemer ore in that State. In a letter on this subject published two years ago, Col. John L. Black, whose father was one of the pioneers of iron-making in that State, having owned what was an extensive plant in those days, 1830-1840, including furnaces, rolling mill, nail works, etc., near the present town of Blacksburg, described these ore properties and claimed that Bessemer pig iron could be made at that point at a very low cost. These ore properties, however, still remain undeveloped, but the MANUFACTURERS' RECORD believes that the time will soon come when the iron ores of the Carolinas will attract the attention of the country, and when at least some of the enthusiasm of those who have written about them will prove to have been justified. In this issue we publish a letter from Mr. J. J. Newman, in which he claims that there are "hundreds of millions" of tons of Bessemer ore in North Carolina, and that Bessemer pig iron can be made there at \$8.00 a ton. Mr. Newman writes so enthusiastically on the subject that many people will be inclined to question the correctness of his statements merely because of his enthusiasm and because of his "hundreds of millions of tons" expression, but because his statements may look extravagant is no reason why they should not be investigated, and this is what he asks.

The letter of Mr. Newman gives a great deal of interesting information on this subject, and presents a strong case in favor of producing Bessemer iron and steel there. As regards the cost of making iron, using either charcoal or coke, an exception must, we believe, be taken to Mr. Newman's estimate of the cost of ore—seventy-five cents per ton. While in exceptional cases this might hold for a short period, taking the average for a year it is likely that the cost would be in excess of this figure. Allowance must be made for many things, among them selecting the ore so as to keep the average of 55 per cent., the little emergencies which cannot be foreseen or avoided, and the various apparently small items which cut an important figure in the year's cost sheet. While this would increase the estimated cost of Bessemer iron, yet even allowing for this, the cost as figured out is sufficiently below the present cost in the North to make a strong argument in favor of North Carolina. In assuming the cost of Bessemer pig at from \$13.00 to \$16.00 at Northern furnaces, Mr. Newman has made the figure rather high, as the former is usually considered to be about the average cost in that section, while some furnaces claim over \$1.00 less. However, if North Carolina can produce Bessemer pig for \$10.00 per ton, all costs of every kind included, it is much less than the North can even hope to do under the most favorable circumstances.

The Reason Why.

The Charleston *News and Courier*, in referring to a large sale of Mississippi land and to the proposed purchase of land in Tennessee for colonization, asks the following questions:

Why should a French syndicate purchase 100,000 acres of land in Mississippi when there is plenty of better land, all things considered, to be had in South Carolina at a less price? And why should immigrants be negotiating for the purchase of 24,000 acres in Tennessee when 24,000 acres of the finest land in the world in the coast country of South Carolina can be bought at about the same price? There are unparalleled opportunities for immigrants in South Carolina, and we have no doubt that they would come here if an intelligent effort were made to show them what they miss by staying away.

The MANUFACTURERS' RECORD is able to answer these questions in part, and it greatly regrets that there is any cause for the reasons which it must give.

In the first place, whether right or wrong, the world at large, and especially the people who are thinking of moving South, look upon South Carolina as a State in which the laws are not well enforced. The writer spent six months some time ago in North Carolina, only a few miles from the South Carolina line. A hundred or more of Western people, some seeking health and some a good location for a home, were met during that time. They all had a high opinion of North Carolina and of the way in which its laws were enforced, but not one of them seemed willing to settle in South Carolina, though just across the unseen boundary line the soil and the climate were just the same. Struck by this fact, the writer studied the matter and found that this sentiment was general with the hundred or more well-educated people that he met during that period, all of them from different sections of the North and West. That is one reason. Is it a just one? The *News and Courier* must answer.

A second reason: Three weeks ago the writer was asked as a matter of friendship to find in Baltimore a banking-house which would handle \$50,000 of South Carolina municipal securities. The matter was presented to a personal friend, a banker, who, the moment it was said that the securities were of a South Carolina town, stated the he had made up his mind not to advise any of his clients to invest a dollar in that State, because of the populist movement there, and what he regarded as persistent hostility to capital on the part of the present controlling political forces in the State.

Here are two facts bearing upon the questions of the *News and Courier* which should command the attention of the people of that State. The MANUFACTURERS' RECORD would be only too glad to say that there was no foundation for these opinions, and its columns will always be open to any who wish to set forth the attractions and resources of that State as against these unfavorable influences that are working against the State.

The Southern Foundry and Machine Works, of Fredericksburg, Va., does not seem to be much affected by hard times, as it is running its plant fourteen hours a day and shipping its agricultural implements over a wide territory. Recent shipments include 100 corn shellers to India, a number to Santos, to Chili and China, and the company now has an order for 300 corn shellers for China. How is that for a Southern factory in

these times? The MANUFACTURERS' RECORD would be glad to hear of what other Southern manufacturing concerns are doing in foreign trade.

MESSRS. DINGEE, WEINMAN & CO., of Lynchburg, have made an earnest appeal to the ways and means committee against any reduction on barytes, as upon the retention of the present duty, they say, "depends the living of more than three thousand people in Virginia and the Carolinas, and many in Missouri." This is one of the industries that is being gradually developed in the South which the present Wilson bill would, it is believed, entirely destroy, unless wages be reduced almost to a starvation point.

MR. M. E. INGALLS, president of the Chesapeake & Ohio Railroad, in an interview in the *Richmond State*, says that free coal, in his opinion, would work incalculable injury to Virginia and West Virginia. He says that he leans to free trade, but the present bad condition of the business of the country makes a radical bill, such as Mr. Wilson has fathered, entirely out of the question and he believes that the bill will not be passed.

A Call for a Convention at Washington.

THE NORTH CAROLINA CAR CO.,
RALEIGH, N. C., December 6.
Editor Manufacturers' Record:

I would respectfully suggest that you propose in your columns a convention or meeting in Washington, D. C., of delegates opposed to free ore, coal, lumber, etc., from every congressional district in the Southern States. It seems to me that that would even influence President Cleveland.

WM. E. ASHLEY, Superintendent.

Town-Building in the South.

RALEIGH, N. C., November 23.
Editor Manufacturers' Record:

The building up of new towns and the extension and growth of old ones is sure to be successful if the proper efforts to get outside capital and manufacturers is pursued by those in charge. The great trouble with nearly every new and old town in the South has been that the projectors have done their advertising and work mostly within their own section or State. The people who are needed are men of experience and capital from the Northern and New England States. As an instance, Southern Pines, Moore county, N. C., was started a few years since on one of the poorest sections of the long-leaf pine ridge, known only for its healthfulness. But the promoters of the enterprise advertised and worked North—there was no advertising done within the State to attract home people—and today the place has hundreds of acres of land that have been made productive by the capital and hands of the Northern people who have settled up the town. There are now four hotels in the place, run by persons from the North, and not a day passes but what new people from the Northern section of the Union go to this place. It has been simply a question of persistent advertising in the right section. There is need of more towns and an improvement of the old in the South, and as soon as the towns of the South join together and properly advertise and work among the right people there will be a steady and rapid growth of the cities and towns in every Southern State.

Another hotel, to be called the Piney Woods Inn, is now under construction at Southern Pines. It will be one of the best arranged buildings, having all the modern conveniences of any hotel in the Southern States. Mr. S. T. Moffett is the contractor.

E. C. ROBINSON.

GENERAL NOTES.

Brief Mention of Various Matters of Current Interest.

THE Maryland Steel Co., at Sparrow's Point, Md., has secured a contract from the Pennsylvania Railroad Co. for 5000 tons of steel rails.

THE Texas & Pacific Coal Co., of Thurbur, Texas, is advertising that while it can turn out 2000 tons of coal a day, it cannot supply the demand, and 200 more miners are wanted, to whom steady work will be guaranteed.

THE steamship *Madrilleno* recently crossed the Atlantic in three days' less time than on any former trip which she has made. The fast trip is said to be due to the fact that she was supplied with Tennessee coal at Port Royal, S. C., where she loaded.

THYGGE SOGARD, Danish vice-consul at Kansas City, Kans., is endeavoring to build up a trade with Denmark by way of the Gulf of Mexico. He was instrumental in establishing the new steamship line between Galveston and Copenhagen, and, according to a Kansas City dispatch, has induced a number of millers and grain exporters to patronize the new line.

THE Florida *Agriculturist* says there is a deposit of cement up and down the Chattahoochee river, both above and below River Junction. The supply is said to be inexhaustible and the quality equal to the Portland cement. A warehouse is being built at River Junction, and the machinery for the proper handling of this material will be shortly placed in position.

MESSRS. ROBINSON & UNDERWOOD, of New Orleans, have sold thirty-three acres of land at Kenner to Chicago people as a site for an extensive box factory. The company has a capital stock of \$100,000. Messrs. P. C. Hanford and H. A. Mullally, of Chicago, being reported as largely interested in it. The New Orleans *Times-Democrat* says: "The factory will manufacture cottonwood boxes by a rather novel process to this section, knives being used instead of saws in cutting the wood into suitable dimensions. The factory will commence work with about 100 hands, and will, it is expected, soon have to increase the force, as the company has entered into a 10-year contract with some of the most extensive consumers."

MAJOR M. P. TURNER, of the Florida Fruit Exchange, estimates that this year's orange crop will be between 4,000,000 and 4,500,000 boxes. Had it not been for the severe storms, which caused considerable damage to the fruit, the crop would have been over 4,500,000 boxes. Much of the crop already marketed is quite inferior, and as a consequence prices have ruled much lower than usual. The growers will net about forty cents a box, while the transportation companies get about 50 per cent. more. The gross receipts on this year's crop to the growers, if calculated on the estimate of 4,000,000 boxes, will be about \$1,600,000, while the share of the railroads and steamship lines will be fully \$2,400,000. Of this amount the transportation lines within the State alone receive fully \$800,000.

A LARGE manufacturing plant has been announced as to be built at Dilworth, N. C., the new manufacturing suburb of Charlotte. The new enterprise will be known as the Charlotte Trouser Co., and application has been made for a charter by R. J. Brevard, W. R. Taliaferro and J. F. Robertson, the capital stock being placed at \$30,000, with privilege of increasing to \$50,000. Plans are now being prepared for the factory building, which is to be a two-story brick structure, 175x60 feet, and

contract will be let for its erection as soon as the plans are received. Operations are expected to commence about March 1, and only pants will be manufactured at first, with the intention of producing other articles later on. Employment will be given to 125 hands at the start. This is one more illustration of the growing diversity of Southern industry. The South now buys nearly all of its ready-made clothes in the North.

A Wise Plan.

The Fulton Steam Boiler Works, of Richmond, Ind., have issued a circular which is worthy of careful attention by all manufacturers. From it we extract the following: "Believing that every abnormal depression has been followed in the past by abnormal activity, we used the comparatively quiet time of the last six months in placing new machinery in our boiler department—new devices for handling material and finished product, both in and about our plant. And now after our attention being drawn away from any more needed improvements, we wish to say that we did all this improving simply because we desired to discount in advance, liberally, any tariff bill presented to Congress. We have taken the ground that reductions would be made, and that even if competition would not be keener, we would be better able to serve our many friends when normal business conditions would take the place of 'panic conditions,' and name lower prices if need be. Now, steam boilers are low in price, and we can name lower prices than ever before; in fact, they are now very low for special reasons—boiler steel is low, boiler tubes are low, labor is low and abundant. These conditions will not be known when business resumes its normal sway. Get our prices now and place your order for 1894, and get ready for keen competition and the business that is bound to come. We are prepared to name a lower discount on our boilers than even the per centum reduction of the Wilson tariff bill."

That sounds like business, and it seems to say "we expect to do business at the same old stand, tariff or no tariff."

[The MANUFACTURERS' RECORD assumes no responsibility for the statements of correspondents, nor does the publication of a communication in these columns indicate that we endorse the views expressed.]

More About World's Fair Awards.

CINCINNATI, December 8.
Editor Manufacturers' Record:

A few weeks ago you mentioned in your paper about the awards made to J. A. Fay & Co. and also the Egan Co. on the self-feed sanders at the World's Fair, Chicago. One manufacturer took exception to this and said he had a higher grade of medal. The actual facts are that J. A. Fay & Co. were awarded a grand medal for a superior sandpapering machine, with points enumerated; the Egan Co. were awarded a grand medal for an extra-well-fitted-up sander, with certain points enumerated, and another firm was awarded a medal for sander, with certain specifications. The judges made no comparisons in any machine, nor were they allowed to do so by the rules of the World's Fair.

The J. A. Fay & Co. were the original introducers and patentees of the triple-drum sander, and all other companies making and using more than one drum are infringers. See patent dated February 22, 1881.

J. A. FAY & EGAN CO.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises and needing machinery or supplies of any kind will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 343.]

RAILROAD BUILDING.

Construction Work in the South During 1893.

With this issue the MANUFACTURERS' RECORD presents a summary of railway construction in the Southern States for the year 1893, which will be found worthy of careful study by all interested in this section. As will be seen by the appended table, 1112 miles of standard and narrow-gauge road have been built, exclusive of city street railway systems. These figures do not include lines changed to standard gauge or sidings. They stand for actual construction of new road.

Going into comparisons with figures of previous years, one of the most striking features is that despite the condition of the money market, which made the year about the most discouraging for railroad projects in the history of this country, only fifty-seven miles less were built in the South in 1893 than in 1892. In North Carolina, Georgia, Florida, Alabama and Arkansas the mileage was greater than during the previous year. Texas, of course, has the largest mileage of any Southern State, 216, but Florida closely follows with 208, due to the construction of the Flagler system and the South Florida extension. Georgia ranks third with 171 miles, considerable of which is the Florida Central & Peninsular's Savannah line.

The figures for 1890, 1891 and 1892 in the table are taken from Poor's Manual, the authority on American railway statistics.

States.	1890.	1891.	1892.	1893.
Maryland.....	46	3	17	12
Virginia.....	167	200	21	14
West Virginia.....	104	111	269	105
North Carolina.....	273	106	45	112
South Carolina.....	170	200	59	20
Georgia.....	355	290	81	171
Florida.....	120	86	157	208
Alabama.....	281	162	31	84
Mississippi.....	76	8	5	3
Tennessee.....	124	220	90	33
Kentucky.....	171	31	44	35
Louisiana.....	105	153	85	36
Arkansas.....	71	95	15	61
Texas.....	216	127	247	216
Total.....	2276	1784	1169	1112

A large amount of repair work was done in the South during the year. The most extensive undertaking was the rebuilding of the sections of the Louisville & Nashville's Mississippi division washed away by the great gulf storm last summer. This work has been described in a previous issue.

A notable feature of the year has been the number of electric and cable roads built in Southern cities. The street-car systems in Baltimore, New Orleans, Mobile, Charleston, Savannah, Norfolk, Atlanta, Knoxville, Jacksonville, Dallas and San Antonio have been rebuilt or are being rebuilt for electric motors or cables. The new cable lines have been confined to Baltimore, however. The aggregate mileage of new or rebuilt street railways in the South in 1893 is fully 500, of which 450 is for electric motors.

From the present indications the amount of railroad building in the South in 1894 will greatly exceed this year's figures if business is restored to its normal conditions. A number of projects, each involving hundreds of miles, are attracting the attention of financiers in connection with Southern development. By this we do not mean what are generally termed "paper schemes," but enterprises in which large capitalists are interested, where guarantees of bonuses and stock subscriptions have been made by responsible parties—in short, enterprises which have backing to them. Lists of the more prominent of these projects, and of the principal lines on which

work has begun or which have been completed during 1893, are given in connection with an outline of street railroad building during the year.

Texas.

State road, four miles, Rusk to lumber district, grading finished, tracklaying begun, (narrow-gauge).
Missouri, Kansas & Texas, thirty-five miles, extension to San Antonio, grading begun.
Missouri, Kansas & Texas, Houston extension, forty-two miles, completed.
Texas, Louisiana & Eastern, extension between Conroe and Trinity river, about twenty miles completed.
Gulf, Beaumont & Kansas City, extension from Neches river towards Sabine river, thirty-one miles completed.
Arcola to Sugarland, fourteen miles, completed.
Texas & Gulf, eighteen miles graded between Marshall and Center.
La Porte, Houston & Northern extension, eight miles completed.
Chicago, Rock Island & Texas extension, Bowie to Fort Worth, sixty-five miles, completed.
Sherman, Shreveport & Southern extension from Jefferson partly graded.
Myrtle Springs Short Line, eight miles nearly completed.
Denison & Washita Valley, six miles of extensions and branches completed.
Portland, Monterey & Gulf, thirty miles under contract, grading nearly completed.
Texas City Terminal, about seven miles completed.
Velasco Terminal, four miles completed.

West Virginia.

Norfolk & Western, mining branch four miles to Kendall & Flick's mines, grading begun.
Mining branches, ten miles in Logan county, completed.
Welsh Colony, three miles, Arvondale to Penbro, nearly completed.
Condon Lane Boom & Timber Co. (private), Hendricks to Grandy river headwaters, work begun on two sections.
Cairo & Kanawha Valley, extension of three miles nearly completed.
Fairmont, Morgantown & Pittsburgh, Pennsylvania extension, partly completed.
Baltimore & Ohio, bridge across the Potomac and 850 feet of tunnel work at Harper's Ferry nearly completed.
Charleston, Clendenin & Sutton, six miles completed.
Kanawha & Michigan, thirty miles extension to Gauley river completed.
Holly River Lumber Co.'s road, partly graded, surveyed twenty miles along Holly river.
Chesapeake & Ohio extensions on Gauley river, Upper Loup creek, Piney river and Twenty-Mile creek; work begun on all. Surveys made for a line fifty miles long up Guyandotte river. About twenty-five miles of branch construction completed.
Baltimore & Ohio, Fairmont Belt line, six miles completed.

Georgia.

Florida Central & Peninsular, 105 miles from Florida line to suburbs of Savannah, completed.
Middle Georgia & Atlantic, Eatonton branch, twenty-five miles partly completed, whole distance graded.
Pitts to Ashburn, Enterprise Lumber Co.'s road (private), about ten miles completed.
Abbeville & Waycross, grading partly finished on fifty-five miles of Fort Valley division.
Macon & Indian Spring, two miles completed.
East & West Railroad of Georgia, partly graded, tracklaying begun from Sparta.
Oconee & Western, partly graded, tracklaying begun.
Atlanta & Decatur (electric), eight miles nearly completed.
Douglas & McDonald, partly graded.
Boston & Albany, twelve miles completed.

Tennessee.

Wiley Boom & Lumber Co., from Bluff City along Holston river, ten miles graded.
Nashville & Knoxville, about twenty miles completed between Chimney Rock and Cookeville; road surveyed to Harriman.
Winchester & Decherd (electric), three miles nearly completed.
Harriman Coal & Iron Co.'s road, two miles completed.
Nashville, Chattanooga & St. Louis branch, three miles completed.

Florida.

South Florida extension, High Springs to Dunnellon, fifty-five miles nearly completed.
Eustis to Lake Griffin, fifteen miles nearly completed.
Tampa & Thonotosassa, fourteen miles, about five miles graded.
Carrabelle, Tallahassee & Gulf, thirty-six miles between Tallahassee and Sopchoppy, completed.
Jacksonville, St. Augustine & Indian River, South Florida extension completed between New Smyrna and Eau Gallie, and nearly completed from Jupiter to West Palm Beach, about 100 miles in all.

Jacksonville & Neptune (electric), sixteen miles, partly finished.
Pensacola, Alabama & Tennessee, ten miles completed to Henrietta Springs.
Atlantic, Suwanee River & Gulf, six miles completed, forty-five miles surveyed.

Kentucky.

Richmond, Nicholasville, Irvine & Beattyville, twenty-five miles graded on Beattyville section.
Louisville, St. Louis & Texas, about twenty-five miles graded on West Point extension.
Louisville & Nashville, mining branch, twelve miles, completed.
Bird's Eye & Jellico, seven miles, completed.
Owensboro, Falls of Rough & Green River, six miles completed.
West Virginia, Pineville & Tennessee, three miles completed.

Virginia.

Norfolk & Western, extension to Wise C. H., four miles, completed.
Roanoke & Southern, extension to Castle Rock mines, three miles, completed.
Pennsylvania, Roslyn to Georgetown, three miles, completed.
Chesapeake & Ohio, branch four miles long to Alleghany Iron Co.'s mines, completed (narrow-gauge).

Arkansas.

Kansas City, Pittsburg & Gulf, about thirty-five miles of extension from Sulphur Springs to Fort Smith completed, also six miles of branches.
Paragould & Northeastern, extension three miles, completed.
Williams & Current River, Palatka section partly completed.
Ultima Thule, Arkadelphia & Mississippi, about twenty miles graded, tracklaying begun.
Springville, Vellville & White River, partly completed.
Stuttgart & Arkansas River, five miles completed.
Missouri Pacific, mining branch, five miles completed.

South Carolina.

Atlantic Coast Line, extension forty-four miles, grading nearly completed, tracklaying begun.
Hampton & Branchville, fifteen miles, completed.

Alabama.

Montgomery, Tuscaloosa & St. Louis, Montgomery to Tuscaloosa, about five miles graded.
Abbeville Southern, twenty-seven miles, completed.
Rutledge & Julian, four miles, completed.
Welch's Mills & Centreville (narrow gauge), twenty miles, completed.
Mobile & Birmingham, three miles extension, completed.
Nashville, Chattanooga & St. Louis, extension from Huntsville, fourteen miles completed.
Gulf Red Cedar Co. (private), fifteen miles completed.

Mississippi.

Mississippi Central Valley, six miles nearly completed.

North Carolina.

Wilmington, New Berne & Norfolk, extension to New Berne, thirty-eight miles, completed.
Raleigh & Western, ten miles nearly completed, forty-five miles surveyed.
W. H. Sikes's lumber road, fifteen miles from Swann's Station nearly completed.
Caldwell & Northern (narrow gauge), about fifteen miles completed, contract let for five miles more.
Carthage & Western extension, twenty miles completed.
Glendon & Gulf, about ten miles graded and five miles completed.
Aberdeen & Rock Fish, about six miles completed.
Laurel River & Hot Springs, partly completed.

Louisiana.

Rayville to Collins, eighteen miles, grading partly completed.
Lake Charles & Watkins, ten miles completed.
Bayou Teche, about ten miles completed between Arnaudville and New Iberia.
Southern Pacific extension, twenty-one miles from Crowley nearly completed.
Laurel Valley, partly built to Rousseau Station.
Ruddock, Bonnet Carré & Northern, partly built between Fort Hazard and Bonnet Carré.
Sibley, Lake Bistineau & Southern, four miles completed.

Maryland.

Baltimore & Drum Point, Millersville to Drum Point harbor, about fifty miles graded, tracklaying begun.
Boonsboro & Keedysville (electric), three miles, nearly completed.
Baltimore & Ohio, Belt line through Baltimore, seven miles including tunnel, nearly completed.
Washington & Chesapeake Beach, grading partly completed.

STREET RAILROADS.

Baltimore, Md.—City & Suburban (electric) system and branches, sixty miles (rebuild).
City Passenger system (cable and electric), twenty-two miles rebuilt for cable, twenty-four miles to be rebuilt for electric motors.
Baltimore Traction Co. (cable and electric), three and a-half miles rebuilt for cable, twenty-one miles rebuilt for electric motors, seven miles to be rebuilt for electric motors.

Lake Roland Elevated Electric Co., twenty-one miles completed for electric motors.
Charleston, S. C.—Enterprise system, fifteen miles, being rebuilt.
Savannah, Ga.—Barton Street Railway, one-half mile (electric) completed.
Lynchburg, Va.—Rivermont line (electric), two miles, nearly completed.
Chattanooga, Tenn.—Alton Park (electric), one mile completed.
Richmond, Va.—Barton Heights line (electric), completed.
New Orleans, La.—City & Lake system (being rebuilt for electric motors), sixty miles, main line.
St. Charles system, fifteen miles, (rebuilt for motors).
Crescent City system, twenty-six miles, (rebuilt for motors).
Mobile, Ala.—Mobile Street Railway Co.'s system, thirty-one miles, (rebuilt for electric motors).
Norfolk, Va.—Norfolk railway system, seventeen miles, (being rebuilt for electric motors).
Augusta, Ga.—Murray Hill (electric), six miles completed.
Little Rock, Ark.—Electric, one mile completed.
Atlanta, Ga.—Metropolitan system, seventeen miles, (rebuilt for electric motors).
Knoxville, Tenn.—Asylum street line (electric), three miles, completed.
West End Railway, four miles, (rebuilt for electric motors).
Newport, Ky.—Electric, two miles completed.
Louisville, Ky.—West Broadway (electric), completed.
Jacksonville, Fla.—Ten miles (rebuilt for electric motors) nearly completed.
Florence, S. C.—Electric, three miles completed.
Dallas, Texas.—Seventeen miles (rebuilt for electric motors).
Baton Rouge, La.—Electric, completed.
San Antonio, Texas.—Twenty miles (rebuilt for electric motors).

PROJECTED ROADS.

Texas.—Texas Midland, extensions to Ennis and sixty-five miles on eastern division.
Fort Worth—Dallas Rapid Transit Line (electric).
Brownsville & Corpus Christi, 155 miles.
Santa Fe, extension Valley Mills to Waco.
Austin, Bastrop & Colorado Valley.
Alabama.—Mobile & Dauphin Island.
Monroeville & Northwestern.
Maryland.—Washington & Baltimore (electric).
Cambridge & Chesapeake, thirty-two miles to Chesapeake bay.
Oakland & Confluence (Baltimore & Ohio feeder).
Baltimore & Cumberland (West Virginia Central project).
Southern Maryland, Pope's Creek extension.
Baltimore, Middle River & Sparrow's Point (electric).
Walbrook, Gwynnook & Powhatan (electric).
Canton, Sparrow's Point & Railroad Point (electric).
West Baltimore Passenger Railroad (electric).
Frederick, Middletown & Myersville (electric).
Tennessee.—Brushy Mountain Railroad extension, five miles.
Chattanooga to Walden's Ridge.
Georgia.—Sandersville & Tennesse.
Kentucky.—Hawesville mining branch.
Virginia.—Roanoke extension.
Norfolk & Western's Portsmouth extension.
West Virginia.—Cheat River Railroad.
Pittsburg, Virginia & Charleston.
Coal River & St. Albans.
Point Pleasant, Buckhannon & Tygert's Valley.
Ronceverte & Lewisburg.
Benwood & Moundsville (electric).
Florida.—Live Oak, Luraville & Gulf.
Florida, Peninsular & Gulf.
South Florida extension.
Mississippi.—Gulf & Tennessee.
South Carolina.—Charleston & Macon.

Some Interesting Figures.

Messrs. Wilson, Colston & Co., of Baltimore, bankers, who are interested in Georgia Central bonds, have made an analysis of Receiver Comer's report, and publish a statement that the Central is earning as much annually on its mileage as some solvent roads whose finances are considered in a much better condition. In their estimate the bankers allow 65 per cent. of the average gross earnings of the roads for the last five years for operating expenses. Deducting this amount from the figures of the report, it leaves \$2,213,519 as annual net earnings of the railroads, and \$2,750,000 as the net earnings of the railways, the steamships and the banking company. This would amount to over 5 per cent. on \$53,000,000. The entire indebtedness of the company is about \$7,000,000 less than this sum. Wilson, Colston & Co. conclude that there is "ample basis for a satisfactory reorganization plan." Mr.

F. M. Colston was one of the original Hollins reorganization committee.

North and South Projects.

A company has been incorporated in Iowa with \$10,000,000 capital which has the title of the Lake Superior, Southwestern & Gulf Railroad Co. It is stated that the company intends to consolidate and operate under one management a series of lines which will form a system from Minnesota to New Orleans or Sabine Pass, Texas. The company proposes to connect one or more roads in Minnesota with a north and south line in Iowa. This is to be connected with a Missouri system, and thus the road will be extended to tidewater. The names of a number of capitalists appear in the articles of incorporation, and it is reported that the Pillsburys, of Minneapolis and St. Paul; J. V. Farwell and George W. Cable, of Chicago, are interested. L. M. Martin, of Des Moines, is vice-president and manager, and E. R. Bristol, president.

J. M. Miller, the secretary and treasurer, writes to the MANUFACTURERS' RECORD about the scheme as follows:

SPRINGFIELD, Mo., December 9.
Editor Manufacturers' Record:

Your favor of the 4th inst. addressed to our Mr. Martin, of Des Moines, has been referred to me for reply, and I beg to state that the press dispatches regarding our enterprise are in the main correct and the construction of the line an assured fact. The work of construction at this point will commence in sixty days, building direct to Little Rock, Ark., a distance of 200 miles. It is possible that the main line will start from Aurora, Mo., a point thirty miles south of Springfield. This matter will be decided within ten days.

J. M. MILLER.

An interesting point in connection with this scheme is the fact that the Sedalia, Warsaw & Southwestern, a line running nearly north and south between the points named in Missouri, is to be converted into a standard-gage line, and, according to late dispatches, is to be extended to Springfield at once. This road, which would form an important connecting link in such a system as proposed, is a portion of the Gould lines in Missouri. The 200 miles of road, Mr. Miller states, will be built to Little Rock, would tap the Iron Mountain, another part of the Gould chain of roads at the latter city. From this it might be inferred that the Goulds are interested in the southern part of the project and the Rock Island in the Iowa and Minnesota portion. The statement that Russell Sage is a director in the new company adds color to this inference. Several of the names given are of men in the Rock Island directory.

Topeka, Kans., advises as to the effect that the convention to further railroad lines from the northern boundary of the United States to the Gulf of Mexico was not successful in attracting many representatives from the several States interested. The convention adjourned after appointing a provisional board of directors for the project to meet again at Topeka the second Tuesday in January. F. J. Close, who presided at the convention, states that a railroad builder offers to construct one of the roads and equip in return for an interest guarantee of 4 per cent. on the investment.

Another L. & N. Rumor.

The latest report in connection with the Louisville & Nashville is that it is planning to secure the Knoxville, Cumberland Gap & Louisville and the Marietta & North Georgia, the latter from Marietta, twenty miles north of Atlanta, to Knoxville, 208 miles, and the former from Knoxville to Cumberland Gap or Middlesborough, seventy-five miles. If purchased, these lines would give the Louisville & Nashville a road from Atlanta to Middlesborough, Ky., where connection would be made with its own lines. It would give Georgia cities a more direct route to Cincinnati and the Ohio river. The Marietta & North Georgia

was to be sold at foreclosure sale this month, but owing to differences between the Tennessee and Georgia courts, the sale has been deferred until the matter can again be considered and an agreement reached by the judges.

To Refund Its Debt.

The Savannah, Florida & Western has executed a mortgage to the Central Trust Co. of New York to secure the issue of \$20,000,000 in 5 and 6 per cent. consolidated mortgage bonds due in 1943. The issue is for the purpose of refunding its present indebtedness and of creating a fund for the purchase of "other lines when deemed necessary." The mortgage covers all the property of the Savannah, Florida & Western. The directors deem it necessary to borrow money at least to the extent of \$20,000 per mile on their lines at 5 per cent., to be paid semi-annually. Of these bonds \$9,790,000 are to be appropriated to taking up the debts of the company, as follows: \$6,500,000 6 per cent. gold-bearing bonds due in 1934; \$290,400 is to be appropriated to paying the indebtedness on the Thomasville & Monticello Railroad, and \$3,000,000 to retiring the bonds now due of the South Florida Railroad.

Construction and equipments come next in order, and 3210 of the bonds, amounting to \$3,210,000, are appropriated to pay the indebtedness thereby created. This covers new lines which have been built recently by Mr. Plant, and new equipments purchased. These bonds, or rather the proceeds, are to be delivered to the directors, and \$500,000 of them are to be delivered within four years from date. Two million dollars of the bonds are to be delivered to the directors for betterments and improvements on the property, and for the acquisition of such other additional equipments as they may deem necessary.

About \$5,000,000 are reserved for the purchase of other roads. From this has arisen a report that the Plant system may endeavor to secure possession of the Florida Central & Peninsular eventually.

Southern Companies to Reorganize.

Boston bondholders of the Kansas City, Memphis & Birmingham have received a circular from the directors stating that as the expectations of increased earnings to a point that would earn fixed charges, as expressed in circular of August 29, 1891, have not been realized, a reorganization of the company's securities is necessary. It is not expected to put the road in the hands of a receiver, but effect the reorganization by other means.

The bondholders of the Louisville, St. Louis & Texas are taking steps to have their mortgage on the road foreclosed and the company reorganized. The road enters Louisville by the Chesapeake, Ohio & Southwestern, which now is controlled by the Louisville & Nashville.

The Charter Repealed.

The South Carolina senate has repealed the charter of the Port Royal & Augusta road. This prevents the Georgia Central from retaining it in the Central system, and permits of its sale to some other corporation.

The New Line to Florida.

The new route between New York and the South will be ready for business January 17, 1894. This was decided on at a recent meeting of officials interested at Columbia, S. C. It has been decided to have two trains each way daily. One of these will be a vestibule train making but few stops between Washington and Jacksonville. The new route is from New York to Washington by the Pennsylvania, Washington to Columbia by the Richmond & Danville, Columbia to Savannah by the South Bound, Savannah to Jacksonville

and Tampa by the Florida Central & Peninsular. The branch now in course of construction from Hart's Road to Savannah will be completed before January 1.

Wants Better Rates.

The merchants and manufacturers of Atlanta are dissatisfied with the present system of freight rates affecting the city, and have taken steps to stir up the railroad authorities on the subject. At a recent meeting addresses were made protesting against what is termed discrimination against Atlanta. Col. I. W. Avery, Jonathan Norcross, Mayor Goodwin and others expressed their sentiments, and the following resolution was adopted:

Resolved, That there be appointed by the chairman of this meeting a committee of twenty-one competent citizens to confer and negotiate with the authorities of the several railroad lines centering in this city as to the rates of freight which shall enable merchants in this city to share in the vast foreign produce and provision trade of this country, and that said committee be hereby requested to continue their efforts until some satisfactory solution and result be obtained.

Railroad Notes.

THE bridge gang of the Jacksonville, Tampa & Key West recently placed a 200-foot drawbridge in position on its road between 5.45 A. M. and 2.45 P. M. of the same day. It required fast work to do this job, however.

A DISPATCH from the City of Mexico states that the Mexican Central contemplates building a branch from Villa Lerdo to San Pedro fifty miles in length.

THE Commercial Club of Waco, Texas, has decided to inaugurate, if possible, a series of trade excursions along the different railway lines entering that city.

W. J. HERBERT has been appointed receiver for the Carolina, Cumberland Gap & Chicago, a line running from Edgefield to Aiken, S. C., and operated by the South Carolina Railway Co.

THE stockholders of the Deer Creek & Susquehanna (projected from Belair, Md., to Harve de Grace) have elected as directors S. A. Williams, F. W. Baker, James Lee, Edward Ferry, O. M. Whitaker, G. G. Street and N. L. Mitchell.

THE property of the Concord (N. C.) Street Railway Co. has been sold at auction to H. S. Puryear, attorney for one of the stockholders.

THE governor of Kentucky has begun a suit against the Louisville & Nashville and the Chesapeake, Ohio & Southwestern to enjoin the former from further negotiations for the purchase of the latter, on the ground that it is violating the laws relative to the control of parallel railroad lines.

New Books.

John Strange Winter, who by the way is a woman, seems to have found much that is really original in making up the plot for her latest novel, "The Soul of the Bishop." Apparently she has had unusual opportunities for studying the character of an Anglican prelate as he appears in private life and among laymen. From a hasty glance at the book, which is published by J. Selwin Tait & Sons, of New York, it seems to be fully up to the standard of other excellent works from the pen of this novelist.

The Anglo-American Publishing Co., of New York, has published M. Betham Edwards's latest novel, "The Curb of Honor," between very attractive cloth covers. The author has picked out such names as Rugden, Lamenta, Ange and Eldred for his characters, which, judging from glimpses of a few chapters, are not remarkably interesting to themselves or the reader. The principal merit of the work seems to be in the decoration of the covers.

Rev. Henry Austin Adams is known as a progressive clergyman, a man of more than usually broad ideas. Consequently, when

he announced his intention of joining the Roman Catholic Church and renouncing the Episcopal religion, those who knew him personally or by reputation were astonished. In answer to criticism and general comment, Mr. Adams has written a series of themes, taking as his subject "The Larger Life," which is supposed to form an explanation and a defense of his action. The series would require more space than can be given in this notice for a careful review. Suffice it to say they are well written and contain arguments which even Mr. Adams's opponents cannot but admire. The work is published by J. Selwin Tait & Sons, of New York.

Christmas Books.

Of the many benefits that Christmas brings to humanity, there are few that are greater than the stimulus which it imparts to authors, to engravers and to publishers, causing them to bring forth books without number whose marvelous beauty of design and finish give new pleasure to young and old and develop in all a love for the beautiful. Every year it seems that perfection has been reached in the getting up of holiday publications, but the next year shows a further advance, and, fortunately for the publishers and for the great reading community also, the demand appears to keep fully abreast of the production. No more beautiful and appropriate present can be given at this season of gift-giving than some one of the many beautiful books that the great publishing houses are vying with each other in issuing. There are books for the aged, the middle-aged, the young, the learned and the unlearned; books suitable for everybody; books cheap enough for the most moderate purse, and books costly enough for the richest. Messrs. Lee & Shepard, of Boston, whose holiday publications have for years attracted great attention, have more than sustained their reputation this season. Their Christmas books can only be appreciated by being seen, for the charm of design and the perfection of execution cannot be fully described. Among the most beautiful of their publications this season are: "I Have Called You Friends," by Irene E. Jerome, with exact fac-similes of the author's original designs in color and gold; "Periwinkle," by Julia C. R. Dorr, illustrated with thirty-six drawings from Charcoal; "The Rime of the Ancient Mariner," by Samuel Taylor Coleridge, with twenty full-page drawings; "Our Colonial Homes," by Samuel Adams Drake, with twenty large engravings; and many others that cover a wide range, including many sacred hymns and short poems dear to thousands, such as "Rock of Ages," "Nearer, My God, to Thee," "Home, Sweet Home," etc., printed in delicate colors on imitation ivory, books of travel, juvenile works, etc. Messrs. Lee & Shepard's publications are for sale by Cushing & Co., of Baltimore, and a full catalogue describing in detail all of their holiday books can be had from the latter or from Lee & Shepard, Boston.

Status of the Nicaragua Canal Project.

An expert examination of the work done on the Nicaragua Canal has been made by the reorganization committee of bondholders of the canal company. It shows that nearly two miles of canal have been excavated to a depth of seventeen feet and to a width varying from 100 to 230 feet. At Greytown 1000 feet of breakwater has been constructed. Eleven miles of railroad have been built along the line of the canal and sixty miles of telegraph line have been strung. The canal line for a distance of twenty miles has been cleared of timber. The accounts show an investment in actual cash and interest of \$4,451,568; in securities issued for purchase of plant, \$2,923,200—total, \$7,374,768.

MECHANICAL.

The Armstrong Semi-Portable Engine and Boiler.

The cuts herewith presented show the

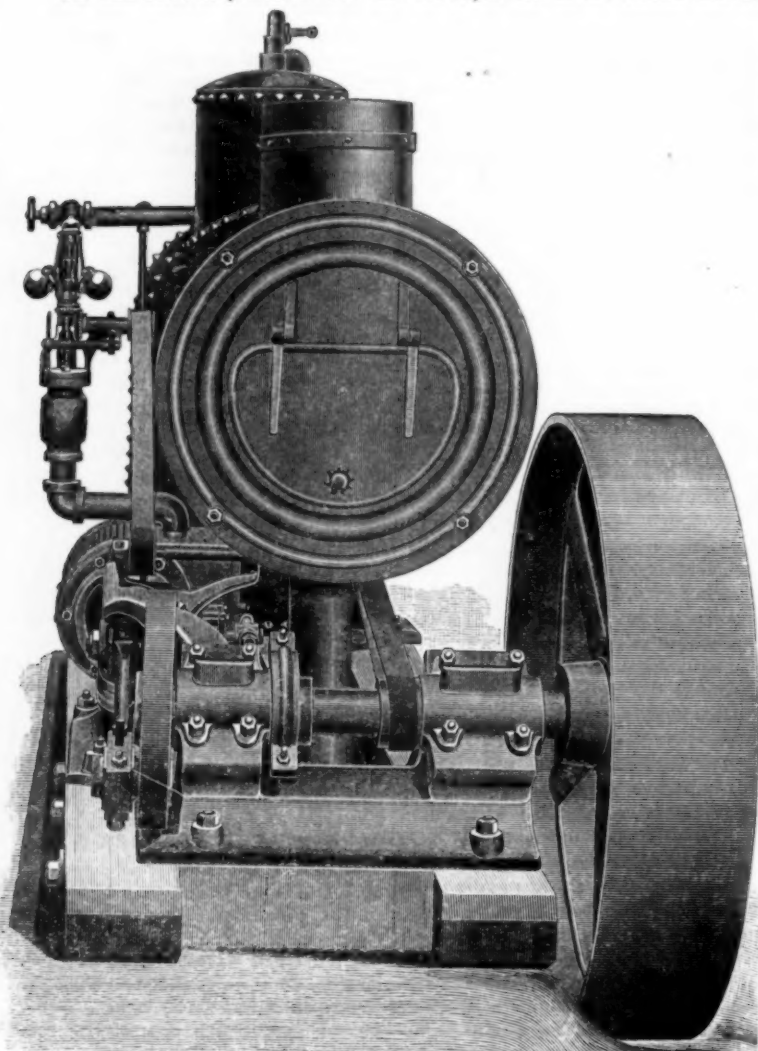
while the boiler in turn is relieved of all strain except what is due from the generation of steam. The journals and wearing parts are not subject to the heat of the boiler, and consequently will wear longer and require less oil to overcome their friction.

foundation without disarranging its parts if it is desirable to divide the load in transporting it over hilly or muddy roads. The boiler is of the best open-hearth homogeneous steel of 60,000 pounds tensile strength throughout, and is thoroughly braced and stay-bolted. These outfits are made in sizes from twelve to sixty horsepower, inclusive, and for prices, cuts, etc., we refer anyone wanting such an engine and boiler to the manufacturers, Armstrong Bros., Springfield, Ohio.

To Prevent Street-Car Accidents.

The accompanying cut gives an excellent idea of the merits of the Robins life-guard.

a right angle and in front of the car platform, being about six inches from the dashboard, the horizontal portion of the netting and frame being six inches from the track or roadway. The wire netting is attached to the frame by springs, thus preventing a person caught up in the fender from receiving any undue shock or injury. Across the front end of the fender there is an elastic steel frame covered with a rubber tube five inches in diameter. This frame and tube is connected to the ends of the fender frame by two short springs, making a very elastic buffer, and, as this buffer is what a person standing on the track would first come in contact with, owing to its yielding nature and to the fact that there



THE ARMSTRONG SEMI-PORTABLE ENGINE AND BOILER.

latest design in the semi-portable engines manufactured by Armstrong Bros., of Springfield, Ohio, which the manufacturers state "more completely combines the advantages of a stationary engine with those of portable than any plan heretofore presented." The design is exceedingly simple and free from complication, and, it is believed, cannot fail to give satisfaction in the hands of anyone at all conversant with the management of a steam engine. The boiler is of the well-known locomotive type, mounted on heavy timbers, to which the engine is also attached. These timbers, with the weight of the boiler and its contents resting on them, form a substantial foundation for the engine. The safety-valve, whistle, steam-gage, water-gage and try-cocks are all placed at the fire-box end of boiler, within easy reach of and directly in sight of the fireman. Water is supplied by an independent automatic feed-water injector, which admits of the use of the boiler for steaming or other purposes entirely independent of the engine. The engine used in this combination has all the good features of a stationary engine, and has governor, sight-feed lubricator and all the requisite cocks, valves and oil cups to make it complete and ready for operation. Among the advantages apparent in this combination the manufacturers mention the following: The engine, being located at the base of the boiler, is free from top-heaviness and can be transported without danger of upsetting. The engine, being entirely disconnected from the boiler, is not affected by its contraction or expansion,

tion. The engine is self-contained; that is, all bearings and the bed-plate are cast in one piece, and they cannot get out of line. The engine can be taken off its

that it can be folded up when the car is reversed or for storage purposes, occupying a space of only ten inches. Wire netting covers the bottom and extends upwards at

person from being thrown out of the fender after having been caught up.

The invention can easily be changed from one end of the car to the other, and



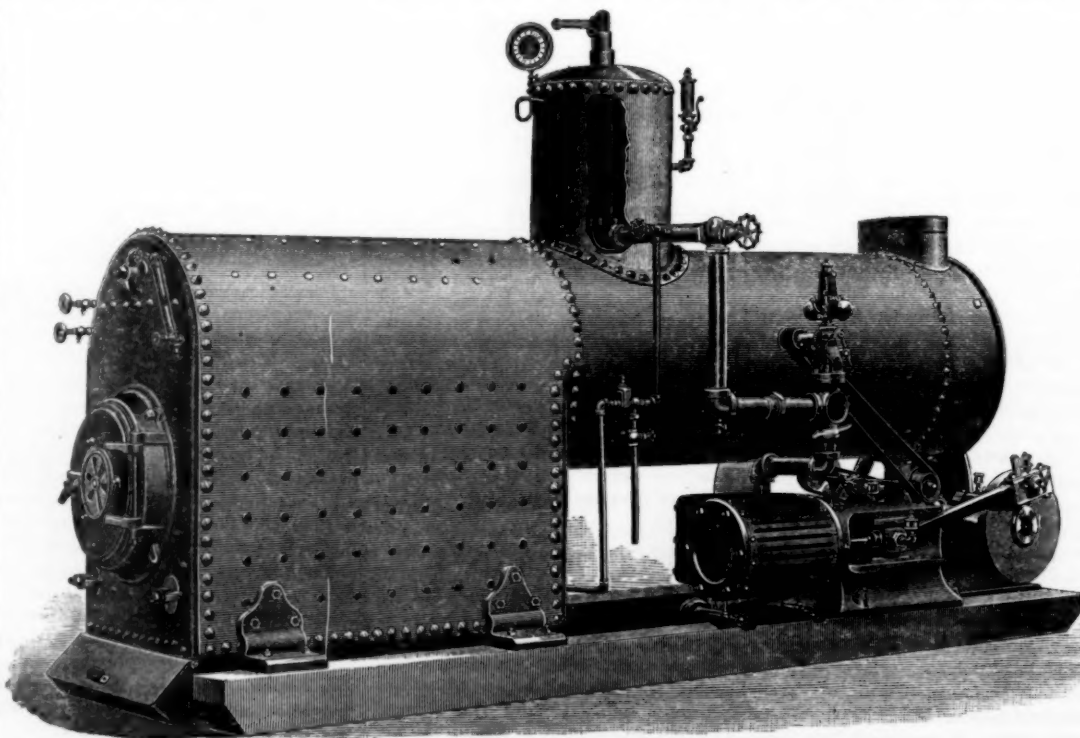
THE ROBIN'S LIFE GUARD.

designed for cable and electric cars. It seems to supply an imperative need for some practical appliance which will save persons from being killed or injured by street cars.

The following is a brief description of the device: The fender consists of an iron frame bolted to the under part of the car body and extending in front of the car three feet and six inches. The frame is made of one-inch gas pipe hinged in such a manner

is nothing solid across the front end of the fender (the end of the frame being practically open, as the cross bar is placed back eight inches from the outer end), the blow struck is a cushioned one.

There is also a second rubber guard ten inches high attached to the bottom netting eight inches from the front end of the fender. This guard has a spring-controlled rearward movement, and when in position stands upright. Its object is to prevent a



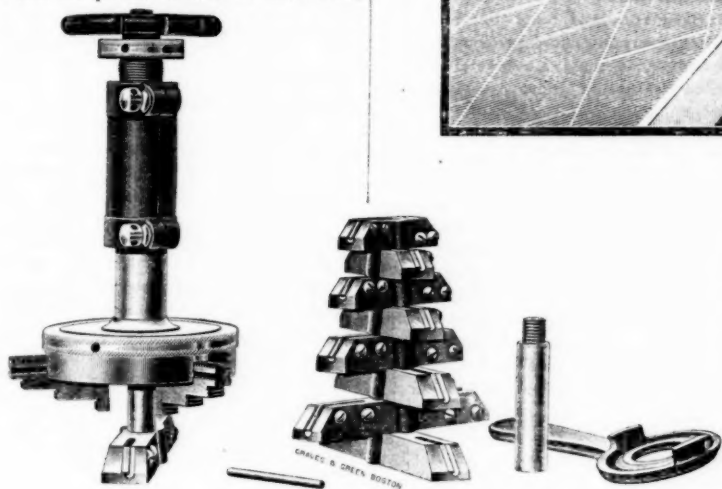
THE ARMSTRONG SEMI-PORTABLE ENGINE AND BOILER.

can also be used in connection with trail cars. The company's address is Room 60, Manhattan Building, Philadelphia, Pa.

A New Morse Valve-Reseating Machine.

The Leavitt Machine Co., of Orange, Mass., whose device for reseating valves has won for itself a reputation in hundreds of establishments all over the country where steam and water valves are in use, has lately placed upon the market new machines for reseating valves of the largest size. The first machines made by them were available for valves from one-quarter to four inches, inclusive, only, but as shown in the engravings herewith, all flat or taper-seat valves can now be made as good as new in a very short time without disconnecting the valve, thus saving time and interference with all parts of the plant. The first engraving shows their new outfit for valves from three to nine inches, inclusive, and the other, the one used in reseating valves from four to twelve inches.

With it any intelligent man can reseal in a true and perfect manner all valve seats,



NEW MORSE VALVE-RESEATING MACHINE.

and make them as good and effective as new valves. This can be accomplished a number of times with the same valve, thus saving the cost of the machine in valves alone in a few months' time at most establishments.

It is well known that the face of a valve and also its seat are worn by constant use,

necting the old valve and putting in a new one causes leaks in joints at various places along the pipe line.

The Leavitt Machine Co., of Orange, Mass., is the sole manufacturer of the Morse valve-reseating machine, and through its various agencies this company has sold large numbers of them to factories, mines,



NEW MORSE VALVE-RESEATING MACHINE.

and that they are cut by the corrosive action of steam, water and other materials passing through the valve chamber, making them untrue and leaky. It is inconvenient and expensive to remove the valve from the pipe, to say nothing of the cost of a new valve and the time lost by stoppage of the plant. The old way of dealing with this trouble was to break connections, and,

railroad companies, breweries, hotels and public institutions.

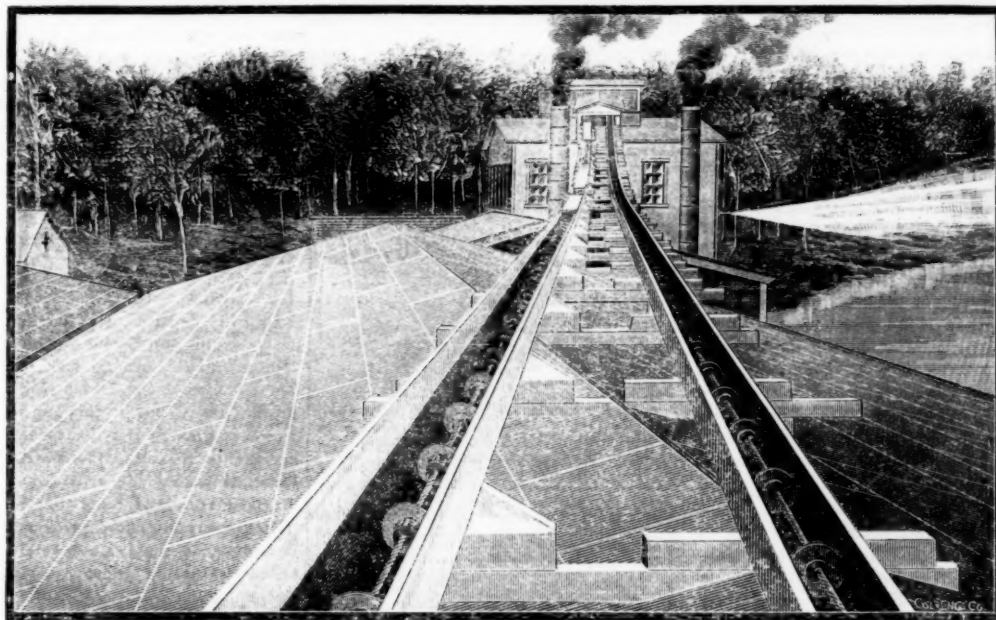
Jeffrey Wire-Cable Conveyor.

The accompanying illustration shows one of the Jeffrey wire-cable conveyors in use in the mill of the Racquette River Paper Co. at Potsdam, N. Y. The conveyor is located on the top of its main building,

after removing the worn valve, throw it on the scrap heap and put in a new one, often necessitating a new joint of pipe. This was often not effective, for new valves are frequently untrue, and the work of discon-

and extends from that over an intervening roof to its sulphite mill. The conveyor is 300 feet between centres and is made of crucible-steel rope, with Jeffrey special conveying clamps attached at regular inter-

be bolted down to be ready for operation. The crank arms are adjustable to different lengths, so as to give more leverage and to suit its use to the various loads. The friction band is lined

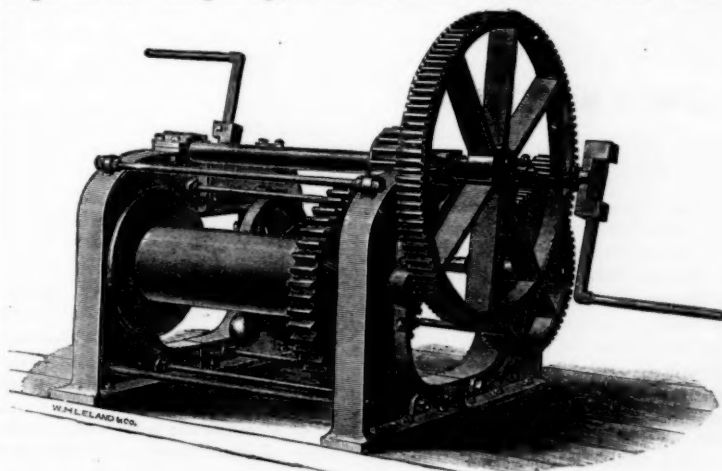


THE JEFFREY WIRE-CABLE CONVEYOR.

vals of three feet. At both terminals 48-inch diameter sheave wheels are used, having four gaps. The conveyor runs on a horizontal plane, the trough on the conveying side being U-shaped and iron-lined, while the return conveyor is run back in a wooden box. This conveyor is designed for handling chips taken from its chipping-room by means of a blower, which delivers them up overhead to the conveyor. The conveyor runs at a speed of about 40-foot travel, and conveys chips sufficient for the capacity of its mill.

The simplicity of this conveyor recommends it for this class of work. It is not limited to the handling of chips, but is also designed for the handling of logs, lumber,

with maple, and the brake lever has a counterbalance for releasing the brake band. All the bearings are lined with Babbitt metal. The drum is twelve inches in diameter and thirty-six inches long. The American Ship Windlass Co. has made quite a number of these winches for export, for hoisting heavy boilers, machinery, etc., where labor is cheap and conveniences for handling heavy work are not accessible. They have a great variety of hand winches, among which is the Stearns patent barge winch, with three different speeds, of which there are thousands in use all over the country. They also make a great variety of lighter and cheaper hand winches, cargo winches, schooner winches, centreboard winches,



HAND WINCH.

offal, shavings, etc. The conveyor is manufactured by the Jeffrey Manufacturing Co., of Columbus, Ohio.

A Labor-Saving Machine.

The hand and steam machinery for hoisting and other purposes made by the American Ship Windlass Co., of Providence, R. I., is well and favorably known throughout the South. One of its specialties is the hand winch, of which we give an illustration. It is designed to do heavy hoisting by hand, and is capable of raising twenty tons on a single whip on the power side. It has two speeds, one geared one hundred to one and the other geared twenty-three to one. As may be seen by the cut, the winch is self-contained, and needs only to

etc., to meet every requirement in that line. They also manufacture a boat-lowering winch for lowering and hoisting boats on vessels of different kinds. Their special facilities for this particular kind of work are such that they can furnish winches in almost endless variety and at as low prices as any concern in the country, as these machines were designed for popular use, and they carry a large stock on hand of the several styles and sizes.

THE Babcock & Wilcox Co. has lost one of its most prominent officials in Mr. Stephen Wilcox, whose death occurred in Brooklyn, N. Y., on November 27. The deceased was well known and highly esteemed by manufacturers and business men who had relations with him.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department, on pages 342 and 343.]

Lumber Directory.

Readers of the MANUFACTURERS' RECORD who may be in the market for lumber of any description are recommended to the directory of Southern lumber manufacturers and dealers which appears among the advertising pages.

Meeting of Lumbermen.

A committee of the National Wholesale Lumber Dealers' Association of New York City, consisting of Messrs. J. W. Hussey, E. M. Price and Richard Lamb, met a representation of the wholesale dealers of Baltimore on Monday last to invite them to join the association. The conference was held in the office of the Tunis Lumber Co., when matters of importance relating to the general interests of the lumber industry were discussed. The national association is endeavoring to bring about a proper feeling between dealers, and has already taken steps to remove the difficulties of lumber transportation or in a certain measure to lessen them. They will also make an effort to overthrow the charge for demurrage on overdue freight, to establish a uniform system of credits and deal largely with the question of insurance. The Baltimore dealers were represented by W. M. Willson, of T. Waters & Son; Greenleaf Johnson, of Greenleaf Johnson & Son Lumber Co.; Louis Dill, of Dill & Roehle; S. P. Ryland, Jr., of Ryland & Brooks Lumber Co.; Richard Price, of Price & Heald; W. D. Jenkins, of Jenkins & Cochran; H. Clay Tunis and S. C. Rowland, of the Tunis Lumber Co. The North Carolina Pine Lumber Co., of Norfolk, Va., was represented by Greenleaf Johnson and S. C. Rowland. Nearly all the Baltimore dealers favor the plans and workings of the national association, and express themselves as desirous of entering the membership of that body at once. The retail and wholesale dealers' associations will meet in New York on the 10th inst. in joint convention. It is expected that this will be the largest meeting ever held in the interests of the lumber trade of the country.

LUMBER MARKET REVIEWS.

Baltimore.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, December 14.

There is a material improvement noted in the local lumber market, and commission men and manufacturers report a better show for the business of 1894. Already there are some evidences of a return to former activity, and a number of bids and inquiries have been received during the week for yellow pine, prompt delivery. The supply at present is fully ample for the current demand, but no pronounced activity is expected until after the new year. Air-dried lumber is in fair request, especially for box, and prices are steady. There is very little inquiry for white pine at the moment, but prices hold firm without change. In hardwoods the demand is quite limited and, as usual at this period of the season, manufacturers are only buying to supply actual necessities.

Throughout the list of hardwoods prices continue very steady, with stocks not excessive, and for choice grades prices are firm. There is some demand for shingles, but trade, on the whole, is quiet, as in other branches of the industry. Box factories and planing mills are not as busy as usual, but look for an improvement in business later on.

The following table represents the prices current at this date:

VIRGINIA AND NORTH CAROLINA PINE.	
5-4x10 No. 2, kiln dried.....	\$16 25@
5-4x12 No. 2, " " " " " "	17 75@
4-4x10 No. 1, " " " " " "	19 75@
4-4x12 No. 1, " " " " " "	20 75@
4-4 narrow edge, No. 1, kiln dried..	17 25@
4-4 wide edge, " " " " " "	21 75@
6-4x8, 10 and 12, " " " " " "	23 25@

4-4 No. 1 edge flooring, air dried...	15 50@	16 00
4-4 No. 2 edge flooring, " " " "	12 00@	13 00
4-4 No. 1 12-inch stock, " " " "	16 00@	17 00
4-4 No. 2 " " " " " "	13 00@	14 00
4-4 edge box or rough wide.....	9 50@	10 00
4-4 " " (ordin'y widths).....	8 50@	9 00
4-4 " " (narrow).....	7 50@	8 00
4-4x12 " " " " " "	11 00@	12 00
3/4 narrow edge.....	7 00@	7 50
3/4 all widths.....	7 50@	8 50
3/4 10x16 wide.....	9 50@	10 50
Small joists, 2 1/2, 12, 14 and 16 long.	7 50@	9 50
Large joists, 3-16 long and up.....	10 00@	11 00
Scantling, 2x3-16 and up.....	9 00@	10 50

WHITE PINE.

1st and 2d clear, 4-4, 5-4, 6-4 and 8-4.	48 00@	51 00
3d clear, 4-4, 5-4, 6-4 and 8-4.....	43 00@	44 00
Good edge culls.....	14 00@	15 00
Good stock.....	17 00@	17 50

CYPRESS.

4-4x6, No. 1.....	18 00@	20 00
4-4x6, No. 2.....	14 50@	15 00
4-4x6, 16 feet, fencing.....	12 50@	14 00
4-4x6, rough.....	9 00@	9 50
4-4 rough edge.....	9 00@	9 50
4-4 edge, No. 1.....	18 00@	20 00
4-4 " No. 2.....	12 50@	13 50

HARDWOODS.

Walnut.	
5-8, Nos. 1 and 2.....	75 00@100 00
4-4, Nos. 1 and 2.....	90 00@100 00
5-4, 6-4 and 8-4.....	95 00@110 00
Newell stuff, clear of heart.....	112 50@125 00
Culls.....	30 00@ 35 00

Oak.

Cabinet, white and red, plain-sawed and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	35 00@	40 00
Quartered white, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....	50 00@	55 00
Culls.....	10 00@	15 00

Poplar.

Nos. 1 and 2, 5-8.....	25 00@	26 00
" " 4-4.....	28 00@	31 50
Nos. 1 and 2, 6 and 8-4.....	32 00@	33 00
Culls.....	14 00@	15 00

SHINGLES.

Cypress, No. 1 hearts, sawed, 6x20.	7 50@	7 75
No. 1 saps, sawed, 6x20.....	5 50@	6 00
No. 1 hearts, shaved, 6x20.....	6 50@	7 00
No. 1 saps, shaved, 6x20.....	5 00@	5 50

LATHS.

White pine.....	2 65@	2 70
Spruce.....	2 15@	2 25
Cypress.....	2 15@	2 25

Norfolk.

[From our own Correspondent.]

NORFOLK, VA., December 11.

Although there has been a material improvement in the lumber market of this port during the past month, manufacturers do not look for a general revival in this industry until after the new year. There has been a number of orders filed during the past week, and for kiln-dried North Carolina pine the demand is growing quite active. Prices are generally firm at the figures quoted by the association, and it is expected that the old-time activity will prevail during the coming year. A number of vessels are now loading here for Northern ports, and several large cargoes of kiln-dried North Carolina pine boards were cleared last week. Receipts of air-dried lumber are moderate, and the market has been rather quiet for this class of lumber on account of the depression in Baltimore. Stocks are generally ample for the demand, although in some instances there has been a drain in certain dimensions. Edge boards are in good supply, while there has been a good run during the week. Planing mills here and at adjacent points are making full time as a rule. Dressed lumber is in good demand, being nearly all shipped by rail. Advices from the saw-mill section of the State report logging operations as quite active, and mills are well supplied and are preparing for a permanent season's work. Charters are easy, with a liberal supply of vessels offering, and rates hold from \$2.25 to \$2.50 to New York and sound ports.

Charleston.

[From our own Correspondent.]

CHARLESTON, S. C., December 12.

There is a fairly active lumber market ruling here at present, with a regular demand from the usual sources. The mills, both here and at adjacent milling points in the State, are now fairly well supplied with orders, but the prices ruling leave a narrow margin of profit. Among the shipments of the past week was a cargo of 40,000 feet of lumber and 200,000 shingles per schooner Samuel E. Edgerton, cleared for Kingston, Jamaica. The schooner Louis V. Place took 622,000 feet and the schooner Anna L. Mulford cleared with 432,000 feet, both for New York. The total exports of lumber from this port since September 1, 1893, aggregates 9,944,522 feet, of which 9,004,520 feet were coastwise and 940,000 feet

foreign, against a total of 11,395,195 feet for the corresponding period last year. The market for building material is very steady, with a better demand for choice grades of lumber. The closing quotations are as follows: Merchantable lumber \$14.00 to \$16.00 for city sawed and \$12.00 to \$14.00 for railroad; square and round timber \$9.00 to \$13.00 for railroad and \$8.00 to \$11.00 for raft; dock timber \$4.50 to \$6.50 and shipping \$8.50 to \$10.50. Shingles are steady, with a good export demand at \$5.00 to \$7.00 per thousand. Freights on yellow pine are quiet and firm at \$4.87 1/2 to New York.

Savannah.

[From our own Correspondent.]

SAVANNAH, GA., December 12.

In every department of the lumber industry of this port business is of moderate volume and the general market is quiet. There is some demand from Northern and Eastern ports, but at this period of the season no great activity is expected. During the past season there was shipped from this port about 860,700 feet of lumber for New York and other domestic ports. There is very little foreign demand at the moment, but there are several charters taken to load in January for the West Indies and Central America. Advices from the saw-mill section adjacent to this city report the mills as getting well under way for a good season's work. The range of prices is very low, showing a narrow margin of profit to the manufacturers. The quotations are as follows: Easy sizes, \$11.25; ordinary sizes, \$12.00 to \$16.50; difficult sizes, \$13.00 to \$25.00; flooring boards, \$14.50 to \$22.00, and ship-stuffs, \$16.50 to \$25.00. Lumber freights are quiet at ruling rates for coastwise business. Foreign business is more or less nominal. The rates from this and near by Georgia ports are quoted at \$4.25 to \$5.25 for a range including Baltimore and Portland, Me. To the West Indies and Windward rates are nominal, to Rosario \$14.00 to \$15.00, to Buenos Ayres or Montevideo \$12.00 to \$12.50, to Rio Janeiro \$13.50, to Spanish and Mediterranean ports \$11.30 to \$11.50. Lumber rates to the United Kingdom for orders are nominal at £4 5s. per standard. Steamer rates to New York and Philadelphia are steady at \$7.00, to Boston \$8.00 and Baltimore \$5.50.

Pensacola.

[From our own Correspondent.]

PENSACOLA, FLA., December 12.

There has been a very active movement here during the month in lumber and timber, and the business in the bay during the past week has shown a large increase in volume. The general outlook for a revival in the timber industry is more encouraging, and advices from Europe report the market as a shade firmer, with considerable reduction in stocks. A large amount of tonnage is in port at present, and the shipments for the current month will be larger than usual. The demand is now quite pronounced both from the United Kingdom and Continent, as well as from Central and South America. A cargo of 780,000 feet of sawn timber was cleared this week for Queenstown, and an Italian bark cleared with 185,000 feet of lumber and 200,000 feet of sawn timber for Genoa; also a cargo of 434,000 feet of lumber for Buenos Ayres. The total shipments for the week aggregate about 5,200,000 feet of lumber and timber. There is considerable activity among the mills in the interior. Logs are becoming more plenty after a rise in the upper streams, and mills find no difficulty now in getting supplies. In the timber freight market rates remain unchanged, and we quote £4 5s. and £4 10s. to United Kingdom or Continent as obtainable at present, shippers' views for large tonnage not being above £4 5s. and £4 7s. 6d. Rates for the River Platte remain from \$11.00 to \$11.50 for Montevideo or Buenos

Ayres, and there is some demand for Rio Janeiro on a basis of \$14.50.

Mobile.

[From our own Correspondent.]

MOBILE, ALA., December 12.

The lumber and timber market has ruled very quiet during the week, and the volume of business has been exceedingly light. As usual at this period of the season, there is very little doing, the winding up of the affairs of the year engaging the attention of those interested in the industry. It is expected that the new year will be characterized by an increase of business, and that shipments of timber will be made during the winter months. Prices in Europe show a slight improvement, and several charters are fixed for late January. In lumber there is a material improvement this season in foreign shipments, and the demand from the West Indies, Central and South America and Europe is better. During the week 892,147 feet of yellow-pine lumber was shipped to Mexico, Cuba and Central American ports, and since September 1, 1893, the clearances aggregate 14,034,735 feet, against 15,577,922 feet last year. Prices show no material change, but rule steady. Hewn timber placed on the market will bring about ten and a-half to twelve cents per cubic foot for 100-foot average and classing B1 good. There is no demand for hewn oak, and for hewn poplar the inquiry is light. Sawn timber is firm at eleven cents per cubic foot, basis of 40-foot average. Lumber and timber freights are steady, with business quiet. Lumber to the West Indies is quoted \$6.00 to \$7.00 per thousand; coastwise \$6.00 to \$6.50; Rio Janeiro \$12.00, and Mexico \$7.50 to \$8.00, with light business offering. Timber to the United Kingdom is quoted at 28s. to 30s. for hewn and £4 7s. 6d. to £5 per standard. Deals per standard £4 5s. to £4 10s. Steamer rates for lumber and timber are £5 10s. to £5 12s. 6d.

Beaumont.

BEAUMONT, TEXAS, December 11.

Throughout the saw-mill section of southeastern Texas the lumber industry is fairly active, and manufacturers and dealers consider the outlook as good for an average business during the next six months. During past week no new feature has been developed in our local trade. Orders from dealers continue to be filed to a moderate extent, and some timber bills have also been placed during the week. There are a number of inquiries for large timber bills, and it is expected that a number of orders will be placed about the new year. Prices continue about steady on a narrow margin for the manufacturer. There is a fairly good demand for shingles, and, as stocks are considerably depleted, prices show a firmer tone. The Reliance Lumber Co., of this place, met with a serious loss on the 5th inst., its dry-kiln being destroyed by fire. The kiln contained over 100,000 feet of lumber, which was entirely consumed. The building was valued at \$8000, and was insured for \$4344.74. Messrs. Fletcher and Gilbert, two leading lumbermen of this city, who have been visiting the West Indies in the interests of their lumber concerns, returned a day or two ago. They report a very favorable outlook for future operations with the islands, but at present business there is rather depressed. With a revival in trade there will be a good demand from these sources. At Orange the mills are all running at full capacity with the exception of the L. Miller shingle mill, which has been shut down for repairs. Pine timber is in good supply, but there is a shortage of cypress logs, and no new stock is expected before January. At Westlake and Lake Charles, La., the lumber trade is active, with a good demand for all choice grades of material.

PHOSPHATES.

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, December 14.

In phosphate matters there is a quiet tone, and the volume of business is of light proportions. There is some inquiry from manufacturers, but no sales have been closed during the week. The advices from points of production report a steady market in Florida and South Carolina. The charters reported during the week are the schooner James McElwee and vessel not named, both from Ashley river, S. C., to Baltimore. The arrivals of phosphate reported are the schooners Miranda, with 543 tons, and the Julia, with 750 tons, both from Tampa, Fla. The Laura L. Messer arrived from Charleston with 660 tons. The market closes quiet and steady as follows: South Carolina rock \$5.00 for Charleston, \$4.75 for Ashley river and \$5.00 to \$5.25 for Ashepoo, S. C., all f. o. b. Florida rock \$5.25 to \$5.50 for 60 per cent. river pebble, \$5.50 to \$6.00 for 65 per cent. and \$6.25 to \$6.50 for 70 per cent., all f. o. b. Charlotte Harbor or Tampa.

FERTILIZER INGREDIENTS.

The market continues quiet, and there is no special change to note in material. The Eastern markets are dull, but the demand for the South is improving. Prices f. o. b. Chicago and Kansas City have advanced during the past week \$1.00 to \$2.00 per ton on blood and high-grade tankage. The market for nitrate soda is very steady at quotations, with a good general demand and ample supply. The following table represents the prices current at this date:

Sulphate of ammonia.....	\$ 3 30@	\$3 50
Nitrate of soda.....	1 87 1/2@	2 00
Hoof meal.....	2 30@	—
Blood.....	2 50@	—
Azotine (beef).....	2 50@	2 70
Azotine (pork).....	2 50@	2 70
Tankage (concentrated).....	2 25@	—
Tankage (9 and 20).....	\$2 35 and 10 cts.	—
Tankage (7 and 30).....	20 00@	21 00
Fish (dry).....	27 00@	28 00
Fish (acid).....	18 00@	20 00

CHARLESTON, S. C., December 11.

The phosphate market here continues to grow stronger, though no advance in price has yet been made. The stock on hand is limited and no indications of future accumulation, as the producers are selling readily their entire production. Advices from Florida show the same state of affairs existing there. The price on crude rock is \$4.50 f. o. b., hot-air-dried, \$5.00 to \$5.25 f. o. b., and ground rock, \$7.50 f. o. b. Charleston. The coastwise shipments for the week are: The Gertrude Abbot, 805 tons, for Baltimore; Anna E. Ketchum, 700 tons, for Baltimore; Rillie S. Derby, 602 tons, Mantua creek; Nina Tilson, 900 tons, Alexandria, Va.; W. W. Converse, 1000 tons, for Weymouth; while in port and loading are the Fannie Reiche, G. R. Congdon, M. J. Lawrence and Addie Bacon. The schooner Edna and Emma is discharging fish scrap, and the A. Denike nitrate of soda and blood. The schooner Jessie McGregor, which put into this port leaking, has repaired damages and is now reloading her cargo of Florida pebble for Baltimore. The Rose Mining Co., recently purchased by A. Hurtz, is now running full capacity and turning out 500 tons of high-grade rock per week. The export shipments from this port beginning September 1, 1893, and ending December 8, 1893, has been 28,843 tons dry rock and 300 tons ground rock.

FERNANDINA, FLA., December 5.

Since my letter of the 28th ult. the steamships Para, Wetherby and Eastgate have cleared with cargoes of phosphate. The steamship Avlona is taking cargo for the French Company, and the steamship Red Jacket for Anglo-Continental Company. Several more steamers are daily expected to take cargoes from this port. The total shipments of phosphate from this port for the month of November, as reported by Messrs.

John G. McGiffin & Co., were 13,005 tons, as shown in the following table:

NOVEMBER PHOSPHATE SHIPMENTS.

Vessel.	Destination.	Tons.
Tonsberg.....	Landskrona.....	1,890
Edmondsley.....	La Rochelle.....	1,430
British Prince.....	Rotterdam.....	2,380
May.....	Dublin and Aberdeen.....	1,300
Eastgate.....	Rotterdam.....	2,105
Wetherby.....	Rotterdam.....	1,850
Para.....	Aberdeen.....	2,050
Total.....		13,005

The total shipments for the eleven months ending November 30, 1893, aggregate 112,937 tons of phosphate. The estimated shipments for the current month are placed at about 14,000 tons; stock of phosphate on hand at date 5437 tons. The phosphate charters reported for December loading are as follows: Cie des Phosphate de France, steamships Avlona, Justin, Dracona, Sledmere and Tynedale; Anglo-Continental Guano Works, steamships Red Jacket and — Prince; Dunnellon Phosphate Co., steamship Transit; Illinois Phosphate Co., bark Darwin.

Phosphate and Fertilizer Notes.

THE Piedmont Phosphate Co. last week shipped from their mines, fifteen miles south of Ocala, Fla., a quantity of phosphate rock at satisfactory rates via Lake-land, Kissimmee, Orlando, Sanford and Jacksonville to Brunswick, Ga.

It is stated that the French Phosphate Co., of the Anthony region of Florida, has shipped during the current year 55,000 tons of phosphate. Of the quantity shipped, every cargo has been found fully up to the required guarantee.

Missouri Lead and Zinc.

JOPLIN, MO., December 11.

The ore market during the past week displayed considerable activity and on the whole was a good one for operators. The output was large, and jack was sold at an advance. The top price here was \$20.50 per ton, and the average for the entire district was not less than \$19.50. Buyers in all cases bought freely and the market held up remarkably well. The lead-ore market was not so active, prices being easy and lower. The market declined on Saturday to \$17.00 per thousand, but most of the ore delivered was sold at \$18.00. The average price was fully \$17.75. The sales by the companies were as follows in the various districts:

Districts.	Zinc, Pounds.	Lead, Pounds.
Joplin.....	1,429,000	425,329
Cartersville.....	1,306,290	310,490
Webb City.....	1,014,910	61,040
Zincite.....	127,370	10,020
Oronoga.....	83,700	85,950
Westworth.....		
Total.....	3,961,270	892,769

District value, \$54,568.

New Hotel for New Orleans.

A dispatch from New Orleans states that a company with \$700,000 capital is to be formed to erect a hotel in that city to cost \$1,000,000. It is reported that a site has been selected on St. Charles avenue for the building, which will be 238 feet front and 153½ feet deep, with eight stories. The idea is for a plain exterior, with gallery and roof promenades. The 350 rooms will be lighted by electricity, properly ventilated and provided with all conveniences. One feature is to be the dining-room, which is to be 118 feet long and elegantly appointed. Henry Maltby, of St. Paul, Minn., is one of a syndicate of Western men said to be back of the scheme.

AT the annual election of officers of the Minerva Colliery Co., at Laredo, Texas, on the 5th inst., Wm. Anderson was chosen president; G. B. Broadwater, secretary, and G. W. Derby, vice-president.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Markets for Cottonseed Products.

NEW YORK, December 13.

The cottonseed-oil market has recovered some during the past week from the lowest prices yet recorded this season. Prime crude has sold as low as twenty-seven cents and prime yellow as low as thirty-three cents, but the week closes with twenty-eight cents bid for prime crude and twenty-eight and one-half bid for choice quality and thirty-four cents the trading price for prime summer yellow. The Mediterranean continues to be a moderate buyer of off yellow oils here at thirty-one cents. The market for white oil is dull, and exporters do not appear to be very much interested in either white oil or prime yellow, and sales have been made recently of white oil as low as thirty-seven cents, but if there should be any demand, it would be difficult to buy much oil at these prices, and small lots have been taken at thirty-eight to thirty-nine cents during the week.

Holland shows a moderate consumption of oleo oil even at lower prices; its butter-making is evidently small, and its wants of cottonseed oil are unimportant outside of takings from its own stock. Germany has fair supplies of oil from consignments they have for present needs. The English markets have declined, so that they are now about on a parity with our market for off yellow oil. The relation of prices of articles absorbed in making compound lard stand about as follows: Cottonseed oil, four and one-half cents per pound; tallow, five and one-eighth cents; oleo stearine, seven cents, while compound lard itself is quoted at six and one-quarter cents, with some few sales as low as six cents. The trading in compound lard has been very small during the past week, and the dullness and inactivity in this article has been prolonged far beyond anyone's expectation. Hence the local lard refiners are indifferent buyers of oil, and are not disposed to accumulate any stock. Any demand for compound lard would at once give life and activity to the trading in cottonseed oil. Hog products have been at easy prices during most of the week, but we are now approaching the new year, when packers will have to secure a liberal stock of hogs, and may be interested in seeing the price of lard advance. This month ought to see the end of the weakness in the lard market and January show new and better conditions. The offerings of oil in this market have been exceedingly moderate, due to the unwillingness of mills to ship oil at all freely at current prices, and they appear still disposed to wait further developments before selling much oil. We are likely to see the general dullness that pervades all branches of provisions and the oil trade continue until the end of the year, when we may hope for some improvement in demand on account of the very small stocks in the hands of consumers. The price of oil, however, will depend very largely upon the price of lard.

HOPKINS, DWIGHT & CO.

NEW ORLEANS, December 11.

The New Orleans cottonseed-product market for the past week has been remarkably quiet, with very few sales of either crude or refined oil being consummated. The mills are gradually reducing the prices of seed, while the holders are still firm and doing all they possibly can to hold back the seed, hoping that prices will advance, which to us does not seem at all probable, as we see no encouragement for the mills in the near future realizing better prices for their products than are now being paid.

Texas crude is being taken up in a small way at twenty-five cents loose, while consumers have reduced their ideas to twenty-four cents for December and January shipment, and for the mills to dispose of large quantities they will have to come to this figure. Crude is held here at twenty-seven cents, while twenty-six and a-half cents is the very best bid obtainable. Some small lots of prime crude in barrels have changed hands at twenty-six and a-half to twenty-seven cents. Refined is being freely offered just now, and we quote same at thirty-two to thirty-four cents in barrels f. o. b. here, according to brands. Cake and meal are dull, and we quote same at \$22 50 per long ton f. o. b. steamer here; jobbing at depot at \$20.00 per ton of 2000 pounds. Linters, too, are slow of sale, as our market is pretty well stocked at present, and the interior mills from every direction are offering them freely. We quote them as follows: A, three and three-quarters to four cents; B, three and a-quarter to three and a-half cents; C, two and a-half to three cents, according to style of staple; ashes, \$17.00 to \$18.00 per ton of 2000 pounds, with none offering.

JAS. RAINEY & CO.

ROTTERDAM, November 25.

The position of the market of this article has been quite unchanged during the past week. The arrivals are not important. Last week only 750 barrels arrived from Velasco, and 700 barrels from New York. The quality arrived from the South is very good. America is reporting that only the Southern States are able this year to produce a high grade of butter oil. The quality of the oil from other States will be unsatisfactory; therefore choice oil will soon be scarce, while lower grades can be obtained in large quantities. In our country it is easier to obtain a high price for a tip-top quality than to sell inferior oil at a low price.

The price for strictly choice oil, quality like the oil of the Union, remains thirty-seven guilders per 100 kilos, ex quay or ex warehouse. This price is to be obtained for spot goods, but later deliveries are to be obtained at somewhat lower prices. The butter-makers, however, are not inclined to buy oil for shipment February-March, and prefer to buy arrived goods or oil soon due here. The demand for butter is not active. The butter-makers expect a better demand for butter in December. Lard has been somewhat steadier, and it is to be expected that as soon as the lard refiners will buy large quantities of cotton oil we will see higher prices for cotton oil. The opinion of our market is that prices of cotton oil will remain steady and unchanged during the next month.

G. W. SANCHES.

[NOTE.—The price in guilders per 100 kilos multiplied by 1.34 will give the price in cents per gallon.—ED.]

Cottonseed-Oil Notes.

THE exports of cottonseed oil from the port of New Orleans for the week ending December 7 aggregated 10,000 gallons, and since September 1, 1893, they amounted to 753,200 gallons, against 1,075,400 gallons for the corresponding period last year. The exports of cottonseed meal for the week was 100 tons to Liverpool.

CAPT. R. A. ROSE has assumed control of St. Mary's plantation, near Kissimmee, Fla., and is at work preparing to plant a 50-acre peach grove, besides cultivating sugar-cane and vegetables. This plantation consists of a reclaimed track of muck land containing 640 acres.

THE Barton & George's Creek Valley Coal Co. held a meeting last week at Lonaconing, Md., and elected the following directors: H. C. Black, John Sheridan, Lloyd Lowndes, Adam E. Hitchins, Howard Hitchins and W. E. G. Hitchins.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

* Means machinery is wanted, particulars of which will be found under the head of "Machinery Wanted."

† In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Bessemer-Concentrating Plant.—The Tennessee Coal, Iron & Railway Co. is erecting, it is reported, a 125-ton plant for roasting ores by a new process which, it is claimed, will solve the problem of making steel from the red ore of the Birmingham district.

Bessemer-Pipe Works.—The Howard-Harrison Iron Co. is overhauling and repairing its pipe works preparatory to resumption of operations.

Bridgeport-Quarries.—Burke & Edmunds are opening rock quarries.

Coal City-Coke Ovens.—The Coal City Mining Co. has lately completed repairs to its sixty coke ovens at an expenditure of \$3000. About twenty ovens are now in blast and it is said that the others will be fired shortly.

Gate City-Mining, etc.—A. W. Smith, representing the Birmingham Trust & Savings Co., has purchased the industrial property of the Birmingham Mining & Manufacturing Co. for \$164,000.

Mobile-Refrigerator Works, etc.—J. J. Simmons, of St. Louis, Mo., manufacturer of refrigerators, office fittings, etc., is trying to organize a company to remove his works to Mobile.

Sycamore-Cotton Mill.—D. L. & J. A. Lewis are putting in additional machinery to double the capacity of their cotton mill.

ARKANSAS.

Black Rock-Machine Works.—The Mossy Creek Tenn. Foundry & Machine Co. will remove its plant to Black Rock and operate as the North Arkansas Machine Co.

Coal Hill-Coal Mine.—The Western Coal & Mining Co., of St. Louis, Mo., has purchased and will work the Coal Hill mine at Coal Hill from the Stielow Coal Co.

Helena-Steam Laundry.—A steam laundry will be built. W. W. Waddell can give information.*

Helena-Foundry and Machine Shop, Canning Factory, etc.—A box factory and a foundry and machine shop are in course of erection, a canning factory of 20,000 cans capacity daily is to be built and negotiations for the removal of a Wisconsin lumber mill to Helena are now under way. Negotiations for a cotton and woolen mill are also pending and options on a site have been secured by a Philadelphia syndicate. W. W. Waddell can give information.

Texarkana-Lumber Company.—E. W. Frost, A. J. Gregory and J. M. Park have incorporated the E. W. Frost Lumber Co. with a capital stock of \$25,000, of which amount \$10,000 is paid in.

FLORIDA.

Bartow-Water Works.—The city contemplates constructing a system of water works to be paid for by an issuance of bonds. E. W. Codington, mayor, can give information.

Carrabelle-Ice Factory.—Pensacola parties are reported as to locate an ice factory at Carrabelle.

Marianna-Saw Mill.—J. T. Milner & Son, of Alabama, contemplate erecting a large saw mill in Jackson county, Fla., or in lower Alabama and have lately been investigating for a site.

Pensacola-Lumber Mill.—The Skinner Manufacturing Co. has acquired the Skinner & McDavid lumber mill on Escambia bay, and will continue to operate it.

River Junction-Cement Works.—It is stated that a building is being equipped with machinery at River Junction to handle cement deposits in the Chatahoochee river.

Spring Hill (not a postoffice)—Saw Mill.—A report says that James Holland, of Ochlocknee, Ga., has located a saw mill at Spring Hill, a new town on the Carrabelle, Tallahassee & Georgia Railway in northern Florida.

Tallahassee-Cigar Factory.—C. A. Sormellan & Co. have started a cigar factory.

GEORGIA.

Atlanta-Glass Works.—A Mr. Rogers has purchased the Atlanta Glass Works and will, it is reported, put same in operation.

Atlanta-Manufacturing.—W. P. Burkes and S. B. Towns have incorporated the Burke Automatic Steam Washing Machine Co. to deal in patent rights and manufacture and deal in machinery. The capital stock is \$5000.

Augusta-Canning Factory.—George Symms, Jr., is enlarging his canning factory building located near Augusta, and will put in enough additional machinery to increase the plant's capacity from 2500 cans to about 25,000 cans.

Augusta-Ice Factory.—The Augusta Ice Co., lately noted as to improve its ice factory, will issue \$10,000 of bonds to pay for same. It is proposed to put in a new 22-ton machine, which will double the plant's present capacity.

Augusta-Broom Factory.—The organization of a company to manufacture brooms is now under way, and the subscription of sufficient stock is practically assured. Augustus Beall can give information.

Augusta-Car Works.—The Young Men's Business League is desirous of locating car works at Macon, and will take steps to try to secure same.

Augusta-Implement Works.—Mr. M. Powers, of Lexington, Ind., is endeavoring to arrange with the Young Men's Business League for the establishment of an agricultural-implement factory.

Kensington-Grist Mill and Gin.—Rogers & De Saba will erect in the spring a cotton gin, and to their grist mill will add a crusher and powersheller.*

Savannah-Brewing, etc.—George Schwartz and Jacob Bigler have incorporated the Georgia Brewing Association for the purpose of manufacturing and brewing beer, etc. The capital stock is \$25,000.

Valdosta-Gas Works.—It is reported that the erection of a gas plant is contemplated.

KENTUCKY.

Ashland-Coal and Timber Developments.—A report from Ashland says that ten engineers, who intend to make surveys, left that city last week with R. M. Broos, of New York, who represents a syndicate which is securing large coal and timber interests in Morgan and Elliott counties. H. S. Little, of New Jersey, and W. De Wall Badge, of New York, are said to be interested.

California-Canning Factory.—The canning factory project is still being pushed. Subscription books are now open in Newport and Covington. Levi Hissem can give information.

Cynthiana-Water Works.—C. C. Breed, of Louisville, is preparing plans for the proposed water works for Cynthiana. When the plans are completed bids will be asked; estimated cost of plant is about \$40,000.

Danville-Bakery.—Messrs. Gilcher have put improved machinery in their bakery.

Elizabethtown-Slave Factory.—Ben Rohr & Son will rebuild their stove factory lately burned.

Hawesville-Coal Mines.—The Hawesville Coal Co. is reported as considering a sale of its property to an Eastern syndicate, and in the event of a sale, it is said, the company will open new coal mines.

Louisville-Electric-power Plant.—The Kentucky & Indiana Bridge Co. may possibly erect an electric-power station at a cost of \$30,000, so states John MacLeod, receiver of the company.

Owensboro-Carriage Works.—F. A. Ames & Co. will erect a three-story brick addition to their carriage works.

Owensboro-Distillery.—M. P. Mattingly & Co. have started up their distillery for the season, mashing about 300 bushels daily.

Pineville-Coal Mines, etc.—J. H. Allen, noted last week as opening the Mt. Vincent coal mines, has organized the Mt. Vincent Coal & Coke Co. to operate same. The upper and lower veins will both be opened. The upper vein carries from twelve to sixteen inches cannel. Coke ovens will probably be built in the spring.

Sadieville-Flour Mill.—A \$10,000 flour mill is to be erected. Rodham Fields, cashier of the Deposit Bank, can give information.

LOUISIANA.

Baton Rouge-Lumber Mill.—The Burton Lumber Co.'s mill has resumed operations after shut-down for repairs.

Kenner-Box Factory.—P. C. Hanford and H. A. Mullaly, of Chicago, Ill., have organized a company with a capital stock of \$100,000 for the purpose of erecting a box factory at Kenner. Thirty-three acres of land have been purchased for the site, and work on a large plant will commence as soon as a charter has been obtained. It is proposed to utilize cottonwood for the boxes. One hundred hands will be employed at the start. Robinson & Underwood, of New Orleans, can give information.

Lake Charles-Steam Laundry.—Patrick Crowley will rebuild his recently-burned steam laundry.

New Orleans-Furniture Factory.—The Grant & Jung Furniture Co. has been incorporated to manufacture furniture, etc. Peter Jung is president; John G. Grant, vice-president and treasurer, and John Matier, secretary; capital stock \$50,000.

New Orleans-Saw Mills.—The Mauchae Cypress Co. has been incorporated with a capital stock of \$50,000 for the purpose of erecting saw mills, dealing in lumber, etc. James D. Lacey is president; Robert W. Rogers, vice-president, and Wood Beal, secretary and treasurer.

New Orleans-Steam Plant.—The parish prison has been sold to Judah Hart for \$11,000, who states that the New Orleans Sewerage Co. will erect a steam plant on the site.

Plaquemine-Ice Factory.—An eight-ton absorption ice factory will be erected, it is reported, and is expected to be in operation by February 15. Machinery has been purchased.

Vidalia-Levee Improvements.—The police jury of Concordia parish has passed a resolution to petition the legislature for the right to issue \$100,000 in bonds for constructing a back line of levee in Concordia parish. C. C. Cordill and T. K. Green, of the legislature, will be asked to indorse this resolution.

MARYLAND.

Baltimore-Electrical-machinery Works.—George W. Smith, Richard O'Toole, George E. Patterson, Wm. M. Stewart and Harry M. Benzinger have incorporated the American Signal Co. for the purpose of manufacturing electrical and other machinery. The capital stock is placed at \$5000.

Baltimore-Electric-power Plant.—The Baltimore & Ohio Railroad Co. is preparing to select a site for the erection of the electric-power plant to operate its trains in the new Belt line tunnel. Work on the building will probably commence in the early spring.

Belair-Electric-light Plant.—The United States Automatic Electrical Service Co., of Worcester, Mass., has made the city a proposition for the erection of an electric-light plant. The mayor can probably give information.

Chewsville-Feed Mill.—Simon Clopper has bought the Old Forge Mill building near Chewsville, and it is said that he intends converting it into a chopping mill.

Frederick-New Reservoir.—The city's new reservoir has been completed and turned over to the city by Messrs. Lane Bros., the contractors. The reservoir cost about \$24,000, and its capacity is 600,000 gallons of water.

Hagerstown-Increase Capital.—The Gapland Turnpike Co. intends to increase its capital stock from \$3000 to \$5000.

Hagerstown-Pneumatic Tire Works.—S. M. Schindel proposes to establish a plant for the manufacture of his patented punctureless armor for pneumatic tires.

Laurel-Implement Works.—The Gaither Bros. Manufacturing Co. has organized to succeed the Hinkle & Gaither Manufacturing Co., manufacturers of agricultural implements. A new line of woodworking machines will be put in shortly.*

Oakland-Flour Mill.—George M. Mason has determined to build a steam flour mill in the spring. Site has been purchased.

MISSISSIPPI.

Greenville-Levees.—The board of Mississippi levee commissioners (Verger & Percy, attorneys) will petition the legislature for authority to issue \$200,000 of bonds for levees.

Meridian-Mercantile.—The Home Supply Co. will be organized with a capital stock of \$50,000 for the purpose of buying and selling the Davis sewing machine. Business is to be commenced when \$15,000 has been subscribed.

MISSOURI.

Amazonia-Flour Mill.—G. W. Harvey will erect a 60-barrel flour mill and has let contract to the Great Western Manufacturing Co., of Leavenworth, Kans.

Bolivar-Flour Mill.—The Bolivar Milling Co. will erect a new 75-barrel flour mill of roller process to replace the plant lately burned. The Great Western Manufacturing Co., of Leavenworth, Kans., has the contract.

Bolivar-Grist Mill.—Miller & Blevins have recently completed a new grist mill.

Carl Junction-Flour Mill.—A project is afoot for the erection of a flour mill. A Mr. Skinner and a Mr. Roberts are interested.

Concordia-Canning Factory.—At a meeting of citizens held last week \$12,000 was subscribed to the stock of a company which intends to erect a canning factory. Officers were elected and work will commence at once. The building and necessary machinery will cost about \$10,000.

Freemansburg-Flour Mill.—Mr. Stout has let contract to August Wolf & Co., of Chambersburg, Pa., for the erection of a 40-barrel roller flour mill.

Joplin-Lead and Zinc Mines.—E. Hedburg, of Joplin, together with Gothenburg (Sweden) capitalists, among whom is Charles Leufstedt, has purchased the Monkey Hill lead and zinc mines in Newton county and organized the Interstate Mining Co. to develop same. Considerable machinery of new and improved patterns has been added and operations are now in progress. In the future the company will extend its lead and zinc interests to the Southeastern States.

Joplin-Copper Mines.—Twelve citizens of Joplin have organized a company to mine copper in southeast Missouri. Machinery will be purchased and work commenced at once.

Kansas City-Mercantile.—M. M. Finney, A. M. Finney and S. P. Shafer have incorporated the Finney Produce Co. with a capital stock of \$2000.

Marshall-Cigar Factory.—Ben Blackburn has started a cigar factory.

Pattonsburg-Corn Mill.—Isaac McCulley & Son will put in a cornmeal mill, contract having been placed with the Great Western Manufacturing Co., of Leavenworth, Kans.

Sheridan-Flour Mill.—A. Freemyer, of Bird City, Kans., has purchased the Sheridan Roller Mills at Sheridan and will operate same.

St. Joseph-Manufacturing.—The Eldridge Manufacturing Co. has been incorporated with a capital stock of \$2500.

Zincite-Lead and Zinc Mines.—Mr. Flynn, of Zincite, has gone to Davenport, Iowa, it is reported, to organize a lead and zinc-mining company.

NORTH CAROLINA.

Burlington-Dye Works.—The Lakeside Cotton Mills will erect a large dyehouse at once to operate for other mills.

Burlington-Furniture and Vehicle Works.—L. J. Fonville is equipping a factory for the manufacture of buggies, wagons and furniture. It is reported that a large number of men will be employed.

Cedar Falls-Gold Mine.—A. H. Redding has commenced operating a gold prospect, and is meeting with success. The ore is quartz bound with blue slate.

Charlotte-Pants Factory.—R. J. Brevard, W. R. Tallaferrero and J. F. Robertson have incorporated the Charlotte Trousers Co. for the purpose of manufacturing trousers, etc. The capital stock is placed at \$30,000, with privilege of increasing to \$50,000. A brick factory will be built at once at Dilworth, adjoining Charlotte, and 125 hands will be employed.

Charlotte-Glass Works.—It is said that Mr. Connelly, of the Alleghany (Pa.) Glass Works, is considering the removal of his plant to Charlotte. Stained glass windows are manufactured at these works.

East Bend-Flour Mill.—John A. Martin contemplates putting in a 50-barrel roller flour mill.*

King's Mountain-Tin Mine.—It is said that J. G. Hood has discovered a rich vein of tin ore on his property and will develop it.

Morganton-Turnpike.—The Mountain View Road Co., which was chartered by the last legislature to construct a turnpike from Morganton to Linville, will hold a meeting this week to organize and open subscription books. A. E. Wilson, I. T. Avery, J. R. Ervin and others are interested.

Salisbury-Gold Mine.—The New London Estates Co., Limited, organized recently in London, England, has purchased the Parker gold mine in Stanley county and will develop it.

Statesville-Mineral Company.—A plan is afoot to organize a mineral company to interest capitalists in the mineral lands of Statesville and vicinity. The Statesville Development Co. can probably give information.

Winston-Tobacco Factory.—Brown Bros. have commenced the erection of a new leaf-tobacco factory.

SOUTH CAROLINA.

Aiken-Kaolin Mines.—Dunbar Lamar has purchased the Franklin kaolin mines, under mortgage, for \$3600.

Blacksburg-Reduction Works.—The Caloric Re-

duction Co. has purchased land as site for its plant, and will at once, it is said, commence work on same and push it to an early completion. The company will probably establish works for the reduction of pyrites and gold ores, and possibly a sulphuric acid plant.

TENNESSEE.

Blue Springs Station.—The Blue Springs Mining Co. will erect a 50-ton concentrating plant to separate lead and zinc ores. The company is now developing a vein of ore on the strike for a distance of 500 feet and on the dip from a depth of 115 feet, and ranging in thickness from six to ten feet.

Chattanooga—Formula Company.—T. E. Simmons, James Alexander, O. F. James, Charles S. Burr and Charles T. Harrison have incorporated the Standard Formula Co.

Clarksville—Saw Mill.—The Clarksville Lumber Co. will no doubt rebuild its burned saw mill.

Dayton—Machine Shop.—The erection of a machine shop has been commenced by A. G. Slawson.

Greenville—Printing Works.—The printing plant of the Herald Publishing Co., of Middlesboro, Ky., has been purchased by Moody & Kennedy, of Greenville, and removed to the latter city.

Memphis—Car Works.—Preparations are being pushed for the early commencement of work on the new Memphis Car & Foundry Co.'s plant adjoining Memphis. The wheel foundry is to be a building 80x250 feet, with a cleaning-room 30x50 feet, 60 inch cupola, and its daily capacity will be 250 wheels. The soft foundry will be 80x250 feet, with 60-inch and 48-inch cupolas, and its daily capacity will be sixty tons. Wheel and axle shops, storeroom, engine-room, charging-room, stencil-room, pattern shop, blacksmith shop, etc., will be included. It is expected that the foundries will be operating within two months, and the company now has contracts on hand for the completion of 2500 cars by May 1. This concern is the present Litchfield (Ill.) Car Co., which is removing its plant to Memphis.

Shelbyville—Electric-light Plant, Flour Mill, etc.—J. F. Boyd, now of Irvington, Ky., has purchased the flour mill, electric-light plant and corn mill at Shelbyville. Operations will be continued.

TEXAS.

Austin—Chemical Works.—J. F. McKenna, W. J. Flanagan and J. D. Lockhart have incorporated the Germatone Co. for the purpose of manufacturing chemical preparations, etc. The capital stock is \$8000.

Austin—Mineral Lands.—Two sections of school land in Presidio county classed as mineral land have been purchased by a Pennsylvania coal company for \$12,800. W. L. McGaughey, land commissioner, can probably furnish further information.

Beeville—Water Works.—The Beeville Water Co., lately reported as chartered, has let contract to Greathouse & Taylor for the construction of a water-works system.

Corsicana—Mercantile.—J. Q. McCammon, H. H. Bonner and W. A. Rainey have incorporated the Corsicana Grocery Co. with a capital stock of \$50,000.

Dallas—Publishing.—C. E. Bird, Ed. C. Smith and T. E. Shirley have incorporated the Texas Christian Publication Co. for publishing purposes. The capital stock is \$10,000.

Dallas—Chemical Works.—W. J. Thurmond, S. E. Taylor, W. A. Shaw and W. L. Kirby have incorporated the Thurmond Chemical Co. with a capital stock of \$25,000.

El Paso—Gold Mines.—Gold has been discovered in a district known as the Organs, fifty miles north of El Paso, and mining is being engaged in. It is reported that Ernest Wald, representing a Birmingham (Ala.) syndicate, and Messrs. G. W. Wood and W. R. Fall, of Las Cruces, N. M., have each ordered a 10-stamp gold mill.

Galveston—Chemical Works.—E. E. and Geo. A. Lankford, H. A. Robertson, W. T. Wall and H. G. Labatt have incorporated the Lankford Chemical Co. with a capital stock of \$10,000.

Sulphur Springs—Electric-light Plant and Water Works.—Evans & Polk have secured an option on franchise for water and electric-light works, and are ready to correspond with parties wanting to invest. Population of city is 9000.

Taylor—Electric-light Plant.—The electric-light plant owned by the city was sold on December 5 at public sale to pay a debt of \$7000 due the Taylor National Bank. Hugh Burns purchased the property at \$8500, and he will probably organize a company to operate the plant.

Yoakum—Electric-light and Water Works.—The electric-light and water works of the Yoakum Improvement Co. was sold under a \$10,000 deed of trust on December 5.

VIRGINIA.

Buena Vista—Foundry and Machine Shops.—A. K. Rarig is said to be in New York endeavoring to perfect plans for reorganizing and putting in operation the Rarig machine shop and foundry plant.

Faber's Mills—Oil Mill.—John W. Martin has started a sassafras-oil mill on his farm, near Faber's Mills.

Fredericksburg—Tile Works.—Swayne, Hite & Trice, tile manufacturers, of New York, are investigating the clay soils of the Fredericksburg section with a view to utilizing same.

Graham—Electric-light Plant.—The Camp Manufacturing Co. is putting in a new and larger electric-light plant.

Greystone—Flour Mill.—R. C. Payne will put in a four-pair roller flour mill. Contract has been let to Griscorn & Co. & McFeeley, of Philadelphia, Pa.

Harrison—Heading Factory.—Zerkle & Patterson have started a heading factory.

Lynchburg—Electric-light Plant.—The committee appointed to investigate electric lighting has made its report and favors the erection of a plant by the city. The mayor can give information.

Newport News—Real Estate, etc.—A bill for the incorporation of the Real Estate, Title & Guarantee Co. has been introduced in the State legislature. The incorporators are C. M. Braxton, L. P. Stearns, J. A. Willet, Charles Shepherd, W. B. Crowell, J. L. Marye and others. The capital stock is to be not less than \$20,000 nor more than \$100,000.

Richmond—Brick Works and Quarry.—The Virginia Brick & Stone Co. has been chartered, its purpose being to develop a white sandstone quarry and manufacture fancy front brick. The capital stock is \$100,000.

Richmond—Publishing.—The Rough Ashlar Publishing Co. has been incorporated with a capital stock of \$15,000 for publishing purposes. Geo. C. Jefferson is president, and C. A. Nesbitt, secretary and treasurer.

Richmond—Box Factory.—R. C. Wortham & Co., manufacturers of tobacco boxes and shooks, have been succeeded by the Alleghany Box Co., organized with Robert Basher, president, and Basil Gawthmay, secretary and treasurer. Order has been placed for a new band resawing machine.

Roanoke—Printing Works.—The Stone Printing & Manufacturing Co. is putting new machinery in its works, including a Cottrell two-revolution four-roller press.

Roanoke—Woolen Mill, etc.—Bonsack Bros., of Bonsack's, manufacturers of woolen goods and clothing, intend to establish their plant in Roanoke if suitable buildings can be obtained.

Roanoke—Canning Factory.—C. H. Grove is building a canning factory at Forest Chapel, in Boutetourt county.

Round Hill—Flour Mill.—The Round Hill Milling Co. is erecting a new flour mill and it is now nearing completion. B. F. Starr & Co., of Baltimore, Md., furnished the machinery.

WEST VIRGINIA.

Charlestown—Electric-light Plant.—The city's electric-light plant will be sold at auction shortly under a first mortgage.

Clarksburg—Coal Mines and Coke Ovens.—The Ten-Mile Coal & Coke Co., reported last week as incorporated, will hold a meeting of stockholders on December 23 at the office of J. H. Davis to complete organization.

Hartmansville—Coal Mine.—W. J. Stump has opened a coal mine.

Kingwood—Furniture Factory.—Baltimore (Md.) parties desire to establish a furniture factory at Kingwood and have made the citizens a proposition for its location.

Moundsville—Water Works.—Benjamin Wilson, of Clarksburg, W. Va.; Arthur Pierce, of Moundsville; Thomas Fawcett, William H. Watt and James T. Fawcett, all of Pittsburg, Pa., have incorporated the Moundsville Water Works Co. for the purpose of constructing the water works lately noted. The capital stock is limited to \$100,000.

Romney—Tannery.—The United States Leather Co. will rebuild its tannery, lately destroyed by fire.

Wheeling—Glass Works.—The endeavors to organize a company to establish new glass works are being continued and over \$125,000 has been subscribed. August Frohne and Charles Morningstar can give information.

BURNED.

Baltimore, Md.—The Canton Dye Works, owned by Eugene Fischer; loss \$5000.

Beaumont, Texas.—The Reliance Lumber Co.'s dry-kiln; loss \$8000.

Belton, Texas.—Stores of Cheeves Bros. and W. A. Wilkerson; loss estimate \$30,000.

Birmingham, Ala.—Southern Female College; loss estimate \$50,000.

Camden, Ark.—The Elliott block; loss estimate \$50,000.

Clarksville, Tenn.—The Clarksville Lumber Co.'s saw mill; loss about \$8000.

Dallas, Texas.—The Consolidated Street Car Co.'s stables, including fourteen horse cars and eleven electric motors; loss \$55,000.

Gladewater, Texas.—Spencer & Laroe's shingle mill, eight miles south of Gladewater.

Graham, Va.—Shrader & Holbrook's saw mill, six miles from Graham.

Hot Springs, Ark.—The Columbia Hotel, owned by M. Muscovitz; loss estimate \$15,000.

King's Mountain, N. C.—W. A. Falls's distillery, near King's Mountain.

Macon, N. C.—Edgerton Bros.' new cotton gin.

Manning, S. C.—Legg & Hutchinson's stables, Bank of Manning, the stores of Sire & Chandler and Weinberg & Strauss and office of the Manning Times; loss estimate \$25,000.

Memphis, Tenn.—The Memphis barrel-head factory.

Nacogdoches, Texas.—T. J. Hill's cotton gin, five miles from Nacogdoches.

New Orleans, La.—W. G. Vincent's store; loss estimate \$7000.

Petersburg, Va.—Jones, Vaughn & Co.'s tobacco warehouse; loss on stock and building \$7500.

Powder Springs, Ga.—Boiler exploded in Joseph Shipp's saw mill.

Shreveport, La.—Skannel & McDade's ginhouse, in Bossier parish.

Statesboro, Ga.—Boiler in Mack Burns's saw mill, twelve miles from Statesboro.

Sulphur Springs, Texas.—Albert Wilson's lumber-kiln.

Troy, Ala.—The Parker House, the courthouse and Joseph Bell's warehouse; loss estimate \$20,000.

Valdosta, Ga.—W. E. Harrell's gin.

Vicksburg, Miss.—The steamer Chattahoochee, of the Vicksburg & Greenville Line; loss \$40,000. The company will secure another vessel to replace her. Their address is Vicksburg.

Wadley, Ga.—The Wadley Hotel, L. A. Cheatman's store and several dwellings; loss estimate \$35,000.

Wheeling, W. Va.—Stables of the Schmulbach Brewing Co.; loss estimate \$25,000.

BUILDING NOTES.

Alexandria, Va.—Police Station.—An addition to the city police station to contain ten cells will be made. William Rogers, architect, may be addressed.

Atlanta, Ga.—Courthouse Improvement.—Bruce & Morgan have prepared plans for improving the courthouse by adding another story. Chairman Hunnicutt, of the board of county commissioners, will give information.

Atlanta, Ga.—Jail.—Bonds may be issued for building a new jail. The county commissioners are considering the matter. Address Chairman Hunnicutt.

Austin, Texas—Theatre.—It is reported that M. B. Curtis, the actor, proposes to build a large theatre in Austin, near the Driskill Hotel, which he has purchased.

Baltimore, Md.—Church.—The Lutheran congregation has secured site for a church to be built in north Baltimore and is raising funds for a new edifice. John Volz may be addressed.

Big Stone Gap, Va.—School.—It is stated that a school building to cost \$20,000 is to be built in a few months.

Birmingham, Ala.—Seminary.—Funds are being raised to rebuild the Southern Female Seminary recently destroyed by fire. Address H. G. Lamar.

Bryan, Texas—Natorium.—A natatorium to contain swimming pool, baths, etc., is to be built at a cost of \$5000. Address secretary of the Agricultural College.

Charlottesville, Va.—Church.—The Presbyterian congregation has purchased a site for a new church it intends building. Address Gen. L. W. Rosser.

Chester, S. C.—Dwelling.—J. C. Hardin will erect a residence to replace the one recently burned. It will be of elaborate design and contain the latest improvements.

De Land, Fla.—Church.—Rev. H. C. Speller states that plans are being prepared for a church edifice to cost \$15,000 for the Baptist congregation.

Hazard, Ky.—Hotel.—The Hazard Hotel and livery stable burned in July last will be rebuilt. Address W. H. Creech for particulars.

Lexington, Miss.—Courthouse.—W. Chamberlin & Co., Knoxville, Tenn., will prepare plans for the proposed courthouse, which is to cost \$25,000.

Little Rock, Ark.—Hospital.—The addition to the county hospital will be two stories high and cost \$5700. J. W. Lavender is superintendent of construction.

Macon, Ga.—Warehouse Addition.—The Jaques & Tinsley Co. will erect an addition to their storage warehouse at once.

Mount Vernon, Ga.—Courthouse.—The people of Montgomery are considering the idea of erecting a new courthouse and will vote on it. Address the board of county commissioners.

New Orleans, La.—Hotel.—It is stated that plans

for the new hotel to be built at a cost of \$1,000,000 have reached such a point that a stock company is to be organized to arrange for its construction. It is calculated to be eight stories high. Henry Maltby, architect, of St. Paul, Minn., is interested.

New Orleans, La.—Asylum.—Funds are being raised to rebuild the Old Folks' Home (colored).

North Wilkesboro, N. C.—Hotel.—The Brushy Mountain Iron & Lithia Springs Co. proposes to erect a hotel to cost about \$20,000. Address J. George Finley.

Rolla, Mo.—Laboratory.—A laboratory to cost \$30,000 is to be built at Rolla as an addition to the School of Mines. Bids will be received by D. W. Malcolm, treasurer, until December 29.

San Antonio, Texas—Stores, etc.—George Witte will erect a building to cost \$7500 for stores and office apartments.

San Antonio, Texas—Stores, etc.—Mrs. F. E. Vance will erect a block to contain stores and office apartments to cost \$7000.

Staunton, Va.—Hospital.—A site has been secured for a hospital to be erected by the King's Daughters. A building fund is being raised.

Taylor, Texas—Church.—Rev. F. Lauth is pastor of the Catholic congregation which expects to build a new edifice to cost \$10,000.

Washington, D. C.—Apartment-house.—It is reported that an apartment-house will be built on 14th street by local capitalists, of pressed brick and brownstone. It is to be six stories high. James F. Denson, Atlantic Building, is architect.

Washington, D. C.—Residences.—Architect Jos. Johnson is preparing plans for five residences to be erected at Mount Pleasant to cost \$20,000.

Washington, D. C.—Theatre.—It is stated that a site 95x141 feet has been purchased for the proposed theatre, which is to be built of brick and light-colored stone. John W. Albaugh is to be manager and W. Bruce Gray, architect.

Washington, D. C.—Postoffice Improvements.—The contract for making improvements to the city postoffice has been let to John Pierce, of New York, for \$49,208.

Wheeling, W. Va.—Residence.—Albert Whitaker will build a suburban residence to cost \$12,000. The contract has been let.

Wheeling, W. Va.—Temple.—The A. O. U. W. lodges are planning to erect a building for a temple to cost \$75,000. S. G. Smith and C. W. Connor are members of a committee in charge of the project.

Williamson, W. Va.—Hotel.—A. B. Ross is architect for a hotel three stories high to cost complete \$5000. Contract is let.

RAILROAD CONSTRUCTION.

Railroads.

Atlanta, Ga.—The sum of \$30,000 has been pledged towards building an electric road from Atlanta to Silver Lake, fourteen miles distant. An effort is being made to organize a company.

Augusta, Ga.—It is reported that the North Augusta Land Co., of which Hon. Pat Calhoun is president, will erect a street railroad from its property to Augusta.

Beaumont, Texas.—The Southern Pacific will construct a bridge across the Neches river near Beaumont. J. Kruttschnitt, at Houston, is general manager.

Belair, Md.—The United States Automatic Electrical Service Co., of Worcester, Mass., has obtained a franchise to build an electric road to Van Bibber, seven miles distant. George T. Carver is interested.

Elkton, Md.—The committee in charge of the Elkton & Southern Railroad project has decided on a route from Childs's Station, on the Baltimore & Ohio, to a point on the Baltimore & Delaware Bay road. The capital is placed at \$10,000. Hon. John S. Wirt, of Elkton, may be addressed.

Elkton, Md.—The Lancaster, Cecil & Southern is surveying a proposed extension from Childs's Station to Elkton. William Howat is engineer. It is a part of the Baltimore & Ohio system, and is to be extended to Oxford, Pa.

Harding, W. Va.—F. P. Reese, of the Belington & Little Laurel Railroad Co., reports that right of way has been secured for the road it will build to Belington. Surveys are now being made.

Hawesville, Ky.—It is stated that the Louisville, St. Louis & Texas is back of the plan to build the road to the coal fields near Hawesville.

Hyattsville, Md.—It is stated that New York capital has been enlisted to build a line from the suburbs of Washington to Chesapeake bay by way of Marlboro. The proposed road would be forty miles long. F. A. Fowler, of Hyattsville, is interested.

Kansas City, Mo.—A charter has been granted to the Missouri River & Chicago Railroad Co., which includes Charles H. Hammett and Lucius J. Smith, of Kansas City, to build a line 120 miles long from a point in Calloway county on the Missouri, Kansas & Eastern to Hannibal, Mo. It is supposed to be a branch of the Missouri, Kansas

& Texas (offices, St. Louis: T. C. Purdy, vice-president).

Little Rock, Ark.—G. B. Oliver, of Corning, Ark.; D. W. Reynolds, of Reyno, Ark., and H. M. Hill, of St. Louis, are among the incorporators of a company which proposes to build a line from a point on the Iron Mountain road in Clay county, and extend to the Current river, sixteen miles distant. It is to be called the North Arkansas.

Little Rock, Ark.—The Little Rock, Hot Springs & Texas Railway Co. has been organized to build from Little Rock to the Texas line.

Richmond, Va.—Representative Mushbach, of Alexandria, has introduced a bill into the legislature authorizing the Virginia & West Virginia Railroad Co. to build a line from southern boundary of West Virginia through Buchanan county to the Tennessee line.

Sedalia, Mo.—It is stated that the Missouri Pacific has secured control of the Sedalia, Warsaw & Southwestern, and that it will be changed to standard gage and extended at once to Springfield. The present road is forty-three miles long, and extends from Sedalia to Warsaw. It has been leased to the Missouri Pacific (office, St. Louis) for several years.

Street Railways.

Atlanta, Ga.—M. M. Everett and others have asked for a franchise to build an electric road on eight of the principal streets of the city. The electrical committee of the city council will consider the matter.

St. Louis, Mo.—It is reported that the People's Railroad Co. will reconstruct one of its lines for electric motors. Address Charles Green, president.

Washington, D. C.—A bill is pending in Congress to allow the Brightwood Railway Co. to build an electric road from Brightwood suburb to a point on its main line.

MACHINERY WANTED

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Belting.—The Gaither Bros. Manufacturing Co., Laurel, Md., wants prices on second-hand belting.

Blowers.—The Gaither Bros. Manufacturing Co., Laurel, Md., wants prices on power blowers.

Boiler.—E. C. Reynolds, Lamar, S. C., wants to buy a fifteen or twenty horse-power boiler.

Boiler Fittings.—Jno. A. Martin, East Bend, N. C., will want fittings for boiler, such as clock, water gages, piping, etc.

Corn Mill.—E. C. Reynolds, Lamar, S. C., wants to buy a good corn mill.

Corrugated Iron.—H. E. Cary, Millen, Ga., wants to correspond with manufacturers of corrugated sheet iron.

Cotton-gin Outfit.—E. C. Reynolds, Lamar, S. C., wants to buy a cotton-gin outfit, including press, etc.

Cupola.—The E. D. Whipple Machine Co., Hariman, Tenn., is in the market for a good second-hand cupola of about thirty inches diameter.

Dynamo.—The Elkin Manufacturing Co., Elkin, N. C., wants a good second-hand 40 to 50-light dynamo of sixteen candle-power.

Electric-light Plant.—Evans & Polk, Sulphur Springs, Texas, wants plans and specifications on electric-light plant for a town of 5000 inhabitants.

Engine.—Jno. A. Martin, East Bend, N. C., may buy an engine.

Engine.—E. C. Reynolds, Lamar, S. C., wants to buy a fifteen or twenty horse-power engine.

Excelsior Machinery.—B. F. Moore, Drawer 384, Birmingham, Ala., wants to correspond with makers of machinery for manufacturing excelsior.

Feed Mill.—E. C. Reynolds, Lamar, S. C., wants to buy a feed grinder.

Feed Mill, etc.—Wm. H. Fix, Spottswood, Va., wants to buy a feed mill and crusher.

Flour Mill.—C. E. Glenn, Parsons, W. Va., wants to correspond with patent roller flour-mill builders.

Flour Mill.—E. C. Reynolds, Lamar, S. C., wants to buy a good flour mill.

Foundry.—The Gaither Bros. Manufacturing Co., Laurel, Md., wants prices on foundry equipments.

Grist-mill Machinery.—Rogers & De Sabla, Kensington, Ga., will want a new set of French buhrs.

Laundry Machinery.—W. W. Waddell, Helena, Ark., invites correspondence regarding furnishing machinery for a steam laundry.

Mortiser and Tenoner.—The Toledo Wire & Iron Works, Toledo, Ohio, wants a second-hand light power mortising and tenoning machine.

Pulleys.—The Gaither Bros. Manufacturing Co., Laurel, Md., wants prices on wood-split pulleys.

Sawing and Splitting Machine.—Plane & Field, Atlanta, Ga., are in need of a machine for sawing and splitting oak and pine wood for stove use.

Saw Mill.—T. H. Ellett, Booker, Va., wants to rent a saw mill for 1894 in good timber land in North Carolina, South Carolina or Georgia.

Skewer Machine.—R. H. Mann, Jr., Petersburg, Va., wants a machine for manufacturing butchers' skewers.

Shafting.—The Gaither Bros. Manufacturing Co., Laurel, Md., wants prices on second-hand shafting and hangers.

Steam Shovel.—R. M. Quigley & Co., 115 North Eighth street, St. Louis, Mo., want a steam shovel in A1 condition; one-and-a-quarter-yard dipper preferred.

Water Works.—Evans & Polk, Sulphur Springs, Texas, want plans and specifications on water works for city of 5000 inhabitants.

B. A. Davis, of Pensacola, Fla., wants to buy plaster brackets.

TRADE NOTES.

THE Glamorgan Co., of Lynchburg, always successful in getting a full share of orders for iron pipe, have just received a contract from Washington for 2500 tons of pipe.

THE Phosphor-Bronze Smelting Co. has removed its main offices to No. 2200 Washington avenue, Philadelphia, where it requests that all communications be addressed.

THE National Water Tube Boiler Co., of New Brunswick, N. J., has sold its plant of 1500 horse-power boilers which it had at the World's Columbian Exposition to the Ohio Steel Co., Youngstown, Ohio.

"BUSINESS is rapidly improving with us." So says the Penberthy Injector Co., of Detroit, Mich. It adds that its November sales are nearly double its October business, and that it is again running its factory on full time and with a full force.

THE city of Cleveland, Ohio, is so well pleased with the first hook-and-ladder truck purchased of Gleason & Bailey, Seneca Falls, N. Y., that the authorities recently placed a second order with these parties for one of their patented trucks. Amityville, N. Y., is also to have a handsome steel-frame hook-and-ladder truck from the shops of Gleason & Bailey, Seneca Falls, N. Y.

DIAMOND drilling as a business is being introduced into the Charlotte section of North Carolina by Mr. Fred Oliver, of Charlotte, who, with a complete outfit, is engaged in boring holes 1500 to 2000 feet in searching for minerals. Mr. Oliver advertises in the MANUFACTURERS' RECORD that he is prepared to undertake diamond-drilling work, and particulars as to cost, etc., can be had from him.

ARMSTRONG BROS., of Springfield, Ohio, report that they have no reason to complain of the lack of orders during the dull season that has existed during the past few months, their shipments of boilers and engines during that time having been very heavy, as shown by a detailed list sent the MANUFACTURERS' RECORD, and in addition to that they also have a large number of contracts yet uncompleted, and are in receipt of advices that their propositions covering over 400 portable boilers have just been accepted.

THE Richmond Dispatch, commenting upon the recent notice published in the MANUFACTURERS' RECORD of a large order for locomotives received by the Richmond Locomotive & Machine Works, says: "This recognition of our facilities for doing business in a large way is of an importance not to be overstated, and the thanks of this community are due to Mr. J. W. Reinhart, of the Atchison, and Mr. M. E. Ingalls, of the Big Four system, as they were the chief instruments in selecting our shops for this work."

THE J. S. Graham Machine Co., Rochester, N. Y., reports that it finds business very fair at present. Among the recent orders booked are the following: Complete planing outfit, consisting of shafting, pulleys, hangers, etc., No. 2 Standard 26-inch four-side planer and matcher fitted with their patent divided rolls and pressure bars, No. 2 special hardwood flooring machines with five cutterheads, self-feed saw table, self feed gang ripping machine, etc., for Fitts, Quinn & Van Etten, Salamanca, N. Y.; timber planer to plane four sides 20x16 inches, flooring machines, self-feed gang ripping machine, exhaust fan, etc., for the Aberdeen Lumber Co., and a full planing outfit for the new mill of G. W. & F. P. Crouch, Rochester, N. Y. The company's new style timber planer and No. 2 special hardwood flooring machines are having a splendid run, despite the general dull times.

THE South seems to have been less affected by the dull times than any other section. W. E. Damon, Southern agent of Richmond City Mill Works, reports the following sales of his house in Kentucky and Tennessee in the eleven months ending December 1, which is run above the average number in the previous nine years: Stout & Davis, Normandy, Ky., 30 barrel mill; Redford & McDowell, Winchester, Tenn., increased mill to seventy barrels; Chandler & Marchison, Maury City, Tenn., 50-barrel mill; J. B. Wilhoite & Son, Chapel Hill, Tenn., 40-barrel mill; Tarpley Bros., Fall Creek, Tenn., 50-barrel mill; Union Mill & Elevator Co., Gallatin, Tenn., 75-barrel mill; Cornwell & Kittrell, Masada, Tenn., 50-barrel mill; Eagle Mill Co., Allensville, Ky., remodeled to sixty barrels; Bowling Green Mill Co., Bowling Green Ky., 200-barrel and corn mill, also boiler and 60,000-bushel elevator; Wilford Mill Co., Oakland, Ky., automatic engine; W. H. Prater, Dalton, Ga., 60-barrel mill; A. L. Mansfield, Alley, Tenn., remodeled to forty barrels; Stoker & Son, Buena Vista, Tenn., 50-barrel mill and corn mill; G. W. Spotswood, Nashville, Tenn., corn-mill outfit; G. R. Smith, Elizabethtown, Ky., 40-barrel mill; Cornishville Mill Co., Cornishville, Ky., 40-barrel mill, water wheel and automatic engine outfit; Carey Bros., Montfort, Ky., 40-barrel mill; Ferrell Bros. & Co., Haley, Tenn., 40-barrel mill; O. S. Bryant, Scottsville, Ky., roller corn-mill outfit; Pleasant Ridge Mill Co., Pleasant Ridge, Ky., 50 barrel mill, corn-mill outfit and power plant; Wells & Co., Benton, Ky., 50-barrel mill and corn mill; Sanders & Co., Vine Grove, Ky., 50-barrel mill; Knox Bros., Boyd, Ky., bolt-ing outfit; Ford Lumber Co., Ford, Ky., roller corn mill; Carby & Skaggs, Millerstown, Ky., 50-barrel mill; Ing & Son, Humboldt, Tenn., 40-barrel mill and corn-mill outfit; Western Bros., Chapel Hill, Tenn., 40-barrel mill; W. E. Larmon, Alva-ton, Ky., corn mill; Lewisburg Mill Co., Lewisburg, Tenn., special machines, etc.

Of Interest to Travelers.

The Baltimore & Ohio Railroad announces that they have placed on sale round-trip tickets at reduced rates to the winter resorts in Florida and the South, and also to such points of interest as Luray, Natural Bridge and Gettysburg. This company has also arranged to place on sale excursion tickets to San Francisco and other points in California on account of the Mid-Winter Fair at unusually low rates. Excursion tickets are now on sale to Philadelphia and New York via the famous Royal Blue Line.

With its vestibuled train service via Washington to Cincinnati, St. Louis and Chicago, the Baltimore & Ohio is in the best of condition to handle Western and Southern travel. That the line is a popular one is attested by the immense World's Fair business handled this summer.

Those contemplating a trip West or South this winter should write to B. F. Bond, division passenger agent, Baltimore & Ohio Railroad, Baltimore and Calvert streets, Baltimore, Md.

Holiday Excursion Tickets on the Pennsylvania Railroad.

For the benefit of the increased travel which the holiday season always brings, the Pennsylvania Railroad Co. will this year sell excursion tickets between the various stations on its system at the reduced rate of two cents per mile. Such tickets will be sold between all stations except to and from stations on the Downingtown and Lancaster Branch and the United Railroads of New Jersey Division. The dates of sale are December 22 to 25 and December 29 to January 1, 1894, inclusive, valid for return until January 3, 1894, inclusive.

Improved Service to Cincinnati and St. Louis.

The Baltimore & Ohio Southwestern limited, leaving Baltimore at 2.25 P. M., and the fast express, leaving at 12.50 A. M., for Cincinnati and St. Louis, are now equipped with a complete dining-car service built expressly for these trains by the Pullman Company. Pullman dining cars are also attached to Royal Blue Line trains leaving Baltimore at 10.48 A. M. and 5.55 P. M. week days, and 8.50 A. M. and 5.55 P. M. Sundays, for Philadelphia and New York.

GRAHAM COUNTY, N. C., is now ready to receive bids on her new \$12,000 courthouse; time open for bids till February 1, 1894. For plans and specifications of the same address or call on W. F. Mauney, register of deeds of Graham county, N. C. The county of Graham also wants to place bonds for the same, bonds to run thirty years at not more than 6 per cent. interest. Call on or address the undersigned for any further information. W. F. Mauney, clerk ex-officio to the board of county commissioners, Graham county, N. C.

TABLE OF CONTENTS.

	Page.
Free Ore and Free Coal.....	339
The Value of Peanuts.....	331
What a Virginia Paper Says.....	331
Carolina's Bessemer Ores.....	331
Southern Textile Notes.....	333
Chance for Some One's Money.....	333
FINANCIAL NEWS:	
The Financial Situation.....	333
Money Getting Easier in Virginia.....	333
New Financial Institutions.....	333
New Bond and Stock Issues.....	333
Interest and Dividends.....	333
Failures and Suspensions.....	333
Financial Notes.....	333
EDITORIAL:	
The Spirit that is Making the South.....	334
What of the Future.....	334
North Carolina's Advantages for Making Bessemer Iron and Steel.....	334
The Reason Why.....	335
A Call for a Convention at Washington.....	335
Town-Building in the South.....	335
More About World's Fair Awards.....	335
General Notes.....	335
A Wise Plan.....	335
RAILROAD NEWS:	
Railroad Building.....	336
Some Interesting Figures.....	336
North and South Projects.....	337
Another L. & N. Rumor.....	337
To Refund Its Debt.....	337
Southern Companies to Reorganize.....	337
The Charter Repealed.....	337
The New Line to Florida.....	337
Wants Better Rates.....	337
Southern Railroad Notes.....	337
New Books.....	337
Christmas Books.....	337
Status of the Nicaragua Canal Project.....	337
MECHANICAL:	
The Armstrong Semi-Portable Engine and Boiler (Illus.).....	338
To Prevent Street-Car Accidents (Illus.).....	338
A New Morse Valve-Reseating Machine (Illustrated).....	339
Jeffrey Wire-Cable Conveyor (Illus.).....	339
A Labor-Saving Machine (Illus.).....	339
LUMBER:	
Meeting of Lumbermen.....	340
Lumber Market Reviews:	
Baltimore.....	340
Norfolk.....	340
Charleston.....	340
Savannah.....	340
Pensacola.....	340
Mobile.....	340
Beaumont.....	340
PHOSPHATES:	
Phosphate Markets.....	341
Phosphate and Fertilizer Notes.....	341
Missouri Lead and Zinc.....	341
New Hotel for New Orleans.....	341
COTTONSEED OIL:	
The Markets for Cottonseed Products.....	341
Cottonseed-Oil Notes.....	341
CONSTRUCTION DEPARTMENT:	
New Enterprises.....	342
Building Notes.....	343
Railroad Construction.....	343
Machinery Wanted.....	344
Trade Notes.....	344
A New Through Sleeping-Car Line from Chicago to Seattle	
Via the Chicago, Milwaukee & St. Paul and Great Northern Railways has been established, and first-class sleeping cars will hereafter run daily from Chicago at 10.30 P. M., arriving at Seattle 11.30 P. M., fourth day. This is undoubtedly the best route to reach the north Pacific coast.	
For time-tables, maps and other information apply to the nearest ticket agent or address Geo. H. Heafford, general passenger agent Chicago, Milwaukee & St. Paul Railway, Chicago, Ill.	
Reduced Rates for the Holidays.	
In pursuance of its usual liberal policy, the Baltimore & Ohio Railroad Co. announces that excursion tickets will be sold between all stations on its lines east of the Ohio river during the Christmas and New Year holidays at reduced rates. The tickets will be sold for all trains December 23, 24, 25, 30, 31 and January 1, and will be valid for the return journey on all trains until January 3, inclusive.	
THE Burlington Route carried 2,300,000 to Chicago during the fair, and from local points near Chicago carried 2,700,000, making a total of 5,000,000. This immense number of people traveled without any accident of any kind and without serious delay.	